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SESSIONAL PAPERS

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OF THE

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OF THE

PROVINCE OF ONTARIO

SESSION 1924

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No. 2 Estimates—Supplementary, for the service of the Province for the year ending 31st October, 1923. Presented to the Legislature, February 19th, 1924. *Printed.* Further Supplementary Estimates for the year ending October 31st, 1924. Presented to the Legislature, March 19th, 1924. *Printed.* Estimates for the year ending 31st October, 1925. Presented to the Legislature, March 25th, 1924. *Printed.*

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No. 4 Report of the Department of Mines for the year 1923. Presented to the Legislature, April 3rd, 1924. *Printed.*

No. 5 Report of the Inspector of Division Courts for the year 1923. Presented to the Legislature, March 5th, 1924. *Printed.*

No. 6 Report of the Inspector of Legal Offices for the year 1923. Presented to the Legislature, April 3rd, 1924. *Printed.*

No. 7 Report of the Inspector of Registry Offices for the year 1923. Presented to the Legislature, March 21st, 1924. *Printed.*

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No. 11 Friendly Societies:—See *No. 10.*

No. 12 Report of the Registrar of Loan Corporations for the year 1923. Presented to the Legislature, March 26th, 1924. *Not Printed.*

No. 13 Report of the Department of Public Works for the year 1923. Presented to the Legislature, March 10th, 1924. *Printed.*

No. 14 Report of the Department of Game and Fisheries for the year 1923. Presented to the Legislature, April 3rd, 1924. *Printed.*

No. 15 Statement showing all sums credited to the Highway Improvement Fund and all sums chargeable thereto for the year 1923. Presented to the Legislature, March 3rd, 1924. *Not Printed.*

No. 16 Report of the Department of Labour for the year 1923. Presented to the Legislature, March 4th, 1924. *Printed.*

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No. 20 Report relating to the Registration of Births, Marriages and Deaths for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

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No. 25 Report upon the Hospitals and Charitable Institutions for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

No. 26	Report upon the Prisons and Reformatories of the Province for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*
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No. 32	Report of the Ontario Vegetable Growers' Association for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*
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No. 36	Report of the Live Stock Branch of the Department of Agriculture for the year 1923. Presented to the Legislature, April 17th, 1924. *Not Printed.*
No. 37	Report *re* Housing of the Bureau of Municipal Affairs for the year 1923. Presented to the Legislature, March 18th, 1924. *Printed.*
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No. 40	Report of the Horticultural Societies of the Province for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*
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No. 43 Reports of the Municipal Water Works and Gas Systems of the Province for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

No. 44 Report of the Temiskaming and N.O. Railway Commission for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

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No. 48 Report of the Department of Public Records and Archives for the Province for the year 1923. Presented to the Legislature, April 8th, 1924. *Not Printed.*

No. 49 Report of the Hydro-Electric Power Commission of the Province for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

No. 50 Report of the Provincial Auditor for the year 1923. Presented to the Legislature, April 17th, 1924. *Printed.*

No. 51 Report of the Workmen's Compensation Board for the year 1923. Presented to the Legislature, April 3rd, 1924. *Printed.*

No. 52 Report of the Ontario Veterinary College for the year 1923. Presented to the Legislature, March 5th, 1924. *Printed.*

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No. 56 Report of Public Service Superannuation Board for the year 1923. Presented to the Legislature, February 18th, 1924. *Not Printed.*

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No. 58 Report of the Agricultural Development Board for the year 1923. Presented to the Legislature, March 13th, 1924. *Printed.*

No. 59 Report of the Ontario Athletic Commission and of the Auditor thereof, for the year 1923. Presented to the Legislature, February 22nd, 1924. *Not Printed.*

No. 60 Report of the Commission under the Extra-mural Employment of Sentenced Persons Act, for the year 1923. Presented to the Legislature, March 3rd, 1924. *Printed.*

No. 61 Report on the Mining Industry in that part of the Province served by the Temiskaming and Northern Ontario Railway Commission, for the years 1922 and 1923. Presented to the Legislature, March 3rd, 1924. *Printed.*

No. 62 Reports of Walter Tymond Gregory Michael John Haney and others appointed under Royal Commission bearing date the 13th day of April, 1922, to inquire into and report upon all estimates submitted from time to time to the Hydro-Electric Power Commission of Ontario for the Queenston-Chippawa Power Development, and also all estimates for the said work submitted by the said Commission to the Government of Ontario, etc., etc. Presented to the Legislature, March 13th, 1924. *Not Printed.*

No. 63 Return to an Order of the House of February 22nd, 1924, that there be laid before House a Return showing (*a*) all correspondence between the Government, or any Member of it and Mr. J. G. Ramsden since the 15th of July last and (*b*) for a similar return of all correspondence (if any) since the said date between the Hydro-Electric Power Commission of Ontario or the Chairman thereof and Mr. J. G. Ramsden. Presented to the Legislature, March 17th, 1924. *Mr. Raney. Not Printed.*

No. 64 Report of the Department of Public Highways for the year 1923. Presented to the Legislature, March 18th, 1924. *Not Printed.*

No. 65 Report of the Mothers' Allowance Commission for the year 1922-23. Presented to the Legislature, March 24th, 1924. *Printed.*

No. 66 Report of the Civil Service Commission for the year 1923. Presented to the Legislature, March 26th, 1924. *Not Printed.*

No. 67 Statement of Distribution of the Statutes for 1923. Presented to the Legislature, March 31st, 1924. *Not Printed.*

No. 68 Return to an Order of the House, dated 14th March, 1924, That there be laid before this House, a Return of all correspondence and papers relative to the appointment of the following inspectors under the Ontario Temperance Act: W. W. Forsythe, L. W. Roach, E. E. Orser, J. H. Bell, F. A. Jennings, James A. Costello. Presented to the Legislature, April 4th, 1924. *Mr. Raney. Not Printed.*

No. 69 Return to an Order of the House, dated 14th March, 1924, That there be laid before this House, a Return of copies of: 1. All correspondence between the present Government, or any member thereof, and A. E. Browning, K.C., lately Deputy Attorney-General of the Province of Saskatchewan. 2. All correspondence between the Attorney-General in the late Government and Mr. Browning. Presented to the Legislature, April 4th, 1924. *Mr. Raney. Not Printed.*

No. 70 Return to an Order of the House, dated 2nd April, 1924, That there be laid before this House, a Return of copies of all correspondence relative to a provincial loan or loans placed during the fiscal year ending 31st of October, 1919, with or through the Home Bank of Canada or any officer thereof. Presented to the Legislature, April 4th, 1924. *Mr. Lethbridge. Not Printed.*

No. 71 Return to an Order of the House of the Eleventh day of April, 1924, that there be laid before the House a Return, showing in detail (by Counties) the Estates from which Succession Duties came in the fiscal year ending October 31st, 1923. *Mr. Raney.* Presented to the Legislature, April 17th, 1924. *Not Printed.*

No. 72	Report on the Adoption Act, 1921, for the year 1923. Presented to the Legislature, April 17th, 1924. *Not Printed.*
No. 73	Return to an Order of the House of the 22nd day of February, 1924, that there be laid before the House a Return showing:—1. The number of motor vehicles purchased by the Government in each year since the first of such purchasing, giving (*a*) the name of each vehicle; (*b*) the price paid for the same; (*c*) the date of purchase; (*d*) the name of the person for whom purchased or who used the same; (*e*) the uses to which the same are put; and (*f*) the ultimate disposition of the motor vehicle. 2. The names of the chauffeurs appointed by the Province of Ontario since the first such employment, showing in each case (*a*) the duties of the chauffeur; (*b*) the hours of labour; (*c*) the salary paid to him; and (*d*) the amount allowed to him, in each year, for personal expenses. Presented to the Legislature, April 17th, 1924. *Mr. Jamieson (Grey). Not Printed.*

Fifty-Sixth Annual Report

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

Hospitals for the Insane Feeble-minded and Epileptic

OF THE

PROVINCE OF ONTARIO

Being for the Year ended 31st October

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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INTRODUCTION

The history of the Ontario Hospitals for the Insane, Feeble-minded and Epileptic does not vary much from year to year. It is a history of a progressive increase in numbers and a corresponding increase in the cost of maintenance.

It would be an agreeable task to be able to inform the public that as a result of a thorough diagnosis, based upon the science of psychiatry, and by the application of modern methods of treating the insane, we have been able to check the progress of insanity in this Province, but the facts do not warrant this optimistic claim. We still have twelve hospitals in the Province specially provided and maintained by public funds, as well as two private sanitaria for the treatment of mental diseases, and our large public hospitals are constantly filled to their utmost capacity. The accompanying table tells its own story:

Year	Admissions	Number treated	Number in residence and applications October 31, 1923
1923	2,266	10,630	9,691
1922	2,133	10,100	9,161
Increase	133	530	530

It will be seen, therefore, that there is an increase all along the line in numbers, and consequently in the cost of supporting the insane. We are forced to the logical conclusion, therefore, that if insanity is to be kept under control it must be cured before it begins. That is to say, we must depend upon some form of prevention, instead of depending entirely upon therapeutics, if this scourge of civilization—insanity—is to be eliminated.

If this increase was simply from 1922 to 1923 it might be regarded as temporary, but the following tables supply undoubted proof that insanity and all other forms of mental abnormality are steadily increasing and have become of national and racial significance and should engage the attention of every intelligent citizen.

COMPARATIVE STATEMENTS COVERING TWENTY YEARS

Year	Population of Ontario	Number of insane	Number per thousand	One insane person to every
1903	2,182,947	6,260	2.8	348
1913	2,527,292	8,186	3.2	308
1923	2,933,662	10,630	3.6	276

Increase in general population in twenty years, 34 per cent.
Increase in number of insane in twenty years, 69 per cent.

The foregoing statements and tables if left unqualified would indeed be startling. We must, therefore, be judicial and present both sides of the case.

The Ontario Hospitals taken as a group are not excelled in the civilized world. They have long since discarded the old method of restraint and adopted modern methods of treatment which have now become standardized in all our institutions. One result of this is that the old "Asylum idea" has become blotted out and the Ontario Hospitals are now popular institutions. As a logical consequence they attract a large population and hundreds of patients have come to us because there is no longer the fear or dread which existed twenty-five or thirty years ago. In considering the growth of insanity we must also consider the change in popular sentiment, but the outstanding fact remains that in a democratic province like Ontario, where life should be normal and natural, we have altogether too many citizens who collapse under the strain and stress of the age.

To those who have been reading the previous Reports issued from this office it will be noted that this one is much smaller in size and in contents than earlier issues. In compliance with the resolution of the Legislative Committee on Printing, we have not published the separate tables of the respective hospitals, but have condensed their contents and supplied the same information in tables 1 to 19.

The remarks of the Superintendents follow these tables, setting forth what has been done and what is required in the way of repairs and extensions to the hospital buildings.

I would also call attention to the special work carried on in some of our hospitals.

W. W. Dunlop,
Inspector.

TABLE

Showing the movement of the Hospital population

	Brockville Hospital			Cobourg Hospital
	Male	Female	Total	Female
Capacity of Hospital	366	351	717	450
In Residence, October 31st, 1922	423	404	827	332
Admitted during year 1923:				
By Warrant	.....	.....	.....	34
By Medical Certificate	102	97	199	74
Voluntary	.....	.....	.....	.....
Total number under treatment during year	525	501	1,026	440
Discharges during year:				
As recovered	44	27	71	4
As improved	17	22	39	17
As unimproved	2	1	3	1
As not insane	.....	1	1	.....
Total number discharged during year	63	51	114	22
Died	33	43	76	23
Deported	2	.....	2	.....
Eloped	7	.....	7	.....
Transferred	.....	.....	.....	.....
Total number admitted since opening of Hospital	2,374	2,305	4,679	563
Total number discharged since opening of Hospital	995	1,030	2,025	56
Total number died since opening of Hospital	799	700	1,499	76
Total number deported since opening of Hospital	20	12	32	2
Total number eloped since opening of Hospital	110	2	112	.....
Total number transferred since opening of Hospital	30	154	184	34
Total number remaining in Hospital, October 31st, 1923	420	407	827	395
Number of applications on file	9	14	23	8
Daily average population	422.6	404.9	826.15	383.77
Collective days' stay of all patients in residence during year	154,095	147,550	301,645	140,076

No. 1.

for the year ending October 31st, 1923.

Hamilton Hospital.			Kingston Hospital.			London Hospital.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
656	639	1,295	311	268	579	590	596	1,186
612	582	1,194	294	280	574	620	647	1,267
59	30	89	3	.....	3	36	12	48
99	128	227	63	63	126	126	137	263
.....	3	3	.....	.....	.....	7	7	14
770	743	1,513	360	343	703	789	803	1,592
12	2	14	19	14	33	47	49	96
51	62	113	15	19	34	20	27	47
3	4	7	2	3	5	1	1	2
.....	.....	.....	.....	.....	.....	.....	.....	.....
66	68	134	36	36	72	68	77	145
41	30	71	22	23	45	56	51	107
6	.....	6	.....	.....	.....	4	2	6
5	.....	5	2	.....	2	1	.....	1
2	2	4	.....	.....	.....	1	.....	1
4,619	4,470	9,089	3,459	2,894	6,353	4,967	4,689	9,656
1,828	2,029	3,857	1,690	1,437	3,127	2,202	2,182	4,384
1,591	1,402	2,993	1,084	860	1,944	1,666	1,516	3,182
91	14	105	17	6	23	22	10	32
168	11	179	122	1	123	168	18	186
291	371	662	246	306	552	250	310	560
650	643	1,293	300	284	584	659	673	1,332
3	4	7	.....	.....	.....	.....	.....	.....
636	610	1,246	298.6	277.1	575.7	624	640	1,264
232,062	222,892	454,954	108,976	101,160	210,136	231,914	237,284	469,198

TABLE

Showing the movement of the Hospital population

	Mimico Hospital.			Penetang Hospital.		
	Male.	Female.	Total.	Male.	Female.	Total.
Capacity of Hospital	300	300	600	166	203	369
In Residence, October 31st, 1922	304	316	620	160	190	350
Admitted during year 1923:						
By Warrant	38	9	47	.....	.....	.....
By Medical Certificate	37	38	75	.....	.....	.....
Voluntary	.....	.....	.....	.....	.....	.....
Total number under treatment during year	379	363	742	160	190	350
Discharges during year:						
As recovered	20	15	35	.....	.....	.....
As improved	5	6	11	1	.....	1
As unimproved	3	.....	3	.....	.....	.....
As not insane	.....	.....	.....	.....	.....	.....
Total number discharged during year	28	21	49	1	.....	1
Died	25	17	42	5	9	14
Deported	.....	.....	.....	.....	.....	.....
Eloped	2	.....	2	2	1	3
Transferred	20	21	41	.....	.....	.....
Total number admitted since opening of Hospital	2,422	2,150	4,572	362	430	792
Total number discharged since opening of Hospital	857	757	1,614	22	23	45
Total number died since opening of Hospital	757	622	1,379	148	193	341
Total number deported since opening of Hospital	56	11	67	10	1	11
Total number eloped since opening of Hospital	63	1	64	18	3	21
Total number transferred since opening of Hospital	385	455	840	12	30	42
Total number remaining in Hospital, October 31st, 1923	304	304	608	152	180	332
Number of applications on file	12	8	20	.....	.....	.....
Daily average population	305.45	307.42	612.87	157.6	186.2	343.8
Collective days' stay of all patients in residence during year	111,489	112,210	223,699	57,526	67,974	125,500

No. 1—*Continued.*

for the year ending October 31st, 1923.

Toronto Hospital			Whitby Hospital.			Orillia Hospital.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
426	426	852	596	522	1,118	536	563	1,099
337	472	809	511	466	977	583	559	1,142
100	42	142	50	10	60	6	3	9
211	203	414	101	122	223	88	72	160
.....	.....	.....	.....	.....	.....	.....	.....	.....
648	717	1,365	662	598	1,260	677	634	1,311
49	52	101	26	28	54	.....	.....	.....
84	63	147	9	12	21	13	10	23
10	5	15	5	6	11	9	5	14
1	.....	1	.....	2	2	.....	.....	.....
144	120	264	40	48	88	22	15	37
81	62	143	39	22	61	28	22	50
20	11	31	.....	.....	.....	.....	.....	.....
8	1	9	3	2	5	8	2	10
49	82	131	.....	1	1	3	.....	3
8,344	8,160	16,504	781	708	1,489	2,007	1,784	3,791
3,939	4,274	8,213	102	120	222	264	151	415
2,292	1,834	4,126	72	54	126	1,008	865	1,873
163	78	241	6	1	7	2	3	5
208	37	245	19	3	22	61	4	65
1,396	1,496	2,892	2	5	7	56	166	222
346	441	787	580	525	1,105	616	595	1,211
5	3	8	2	2	4	.....	.....	850
318	419	737	541	483	1,024	581	567	1,148
116,070	152,935	269,005	197,465	173,895	373,760	212,166	207,025	419,191

TABLE No. 1—*Continued.*

Showing the movement of the Hospital population for the year ending October 31st, 1923.

	Woodstock Hospital.			Guelph Hospital.	Gross Totals.
	Male.	Female.	Total.	Male.	
Capacity of Hospital	97	112	209	100	.....
In Residence, October 31st, 1922	95	107	202	70	8,364
Admitted during year 1923:					
By Warrant	.....	.....	.....	26	458
By Medical Certificate	13	17	30	.....	1,791
Voluntary	.....	.....	.....	.....	17
Total number under treatment during year	108	124	232	96	10,630
Discharges during year:					
As recovered	.....	.....	.....	2	410
As improved	1	5	6	.....	459
As unimproved	7	.....	7	.....	68
As not insane	.....	.....	.....	.....	4
Total number discharged during year	8	5	13	2	941
Died	5	8	13	3	648
Deported	.....	.....	.....	.....	45
Eloped	.....	.....	.....	.....	44
Transferred	.....	.....	.....	.....	181
Total number admitted since opening of Hospital	425	343	768	105	58,361
Total number discharged since opening of Hospital	175	115	290	4	24,252
Total number died since opening of Hospital	155	117	272	8	17,819
Total number deported since opening of Hospital	.....	.....	.....	.....	525
Total number eloped since opening of Hospital	.....	.....	.....	.....	1,017
Total number transferred since opening of Hospital	.....	.....	.....	.....	5,995
Total number remaining in Hospital, October 31st, 1923	95	111	206	91	8,771
Number of application on file	.....	.....	.....	.....	920
Daily average population	96.32	109.04	205.36	85	.....
Collective days' stay of all patients in residence during year	35,157	39,802	74,959	31,025	.....

TABLE No. 2.

Showing social state of patients admitted during the year at all the Ontario Hospitals, and religion of patients.

	Admissions during 1923.
SOCIAL STATE—	
Single	1,078
Married	952
Widowed	193
Divorced	5
Separated	9
Unascertained	29
Totals	2,266
RELIGION—	
Baptists	86
Congregationalists	14
Anglicans	469
Methodists	436
Presbyterians	350
Roman Catholics	474
Other Denominations	281
Unascertained	156
Totals	2,266

TABLE No. 3.

Showing nativity of patients admitted during the year 1923.

Nativity.	Admissions of Year.
Total born in Canada	1,472
Armenia	1
Assyria	2
Austria	30
Australia	3
Belgium	1
Bulgaria	1
China	4
Denmark	...
England	333
France	7
Finland	10
Galicia	7
Germany	8
Greece	3
Holland	...
Hungary	...
Ireland	82
Italy	14
Japan	...
Macedonia	...
Other British Possessions	13
Norway	1
Roumania	7
Russia	50
Scotland	82
South America	1
Spain	...
Switzerland	...
Sweden	3
Turkey	...
United States	44
West Indies	2
Poland	11
Unascertained and other countries	74
Totals	2,266

TABLE No. 4.

Showing the occupation of those admitted to all Ontario Hospitals.

Occupation.	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetanguishene Hospital.	Toronto Hospital.	Whitby Hospital.	Guelph Hospital.	Total Insane Admitted.	Orillia Hospital.	Woodstock Hospital.	Total Insane, Feeble-minded and Epileptics.
Professional:— Clergy, Military and Naval Officers, Physicians, Lawyers, Architects, Artists, Authors, Civil Engineers, Surveyors, etc.	2	1	7	2	2	4	...	5	11	...	34	...	...	....
Commercial:— Bankers, Merchants, Accountants, Clerks, Salesmen, Stenographers, Typewriters, etc.	19	2	24	11	12	4	...	47	41	...	160	...	2	2
Agricultural and Pastoral:— Farmers, Gardeners, Stock Men, etc.	22	...	43	20	69	24	...	26	20	...	224	...	4	4
Mechanics at Outdoor Vocations:— Railway and Stationary Engineers, Blacksmiths, Carpenters, Engine Fitters, Sawyers, Painters, Police, etc.	12	...	27	2	8	7	...	40	10	...	106	...	...	....
Mechanics, etc., at Sedentary Vocations:— Shoemakers, Bookbinders, Compositors, Weavers, Tailors, Seamstresses, Bakers, Factory Workers, etc.	9	6	21	6	12	3	...	32	19	...	108	...	...	....
Domestic Service:— Waiters, Cooks, Servants, etc.	3	25	25	6	5	3	...	51	9	...	127	...	1	1
Education and Higher Domestic Duties:— Governesses, Teachers, Students, Housekeepers, Nurses, etc.	94	66	101	48	127	41	...	134	97	...	708	...	16	16
Miners, Marine Engineers, Railway Employees, Seamen, etc.	...	...	6	2	4	1	...	7	9	...	29	...	...	....
Labourers	27	...	39	11	39	25	...	133	48	...	322	...	2	2
No Occupation	11	...	25	15	29	8	...	69	14	...	171	169	5	174
Unascertained	...	8	1	...	18	2	...	12	5	26	72	...	...	....
Soldiers and Naval Service	...	...	...	6	...	...	...	...	...	...	6	...	...	....
Totals	199	108	319	129	325	122	...	556	283	26	2,067	169	30	199

TABLE No. 5.

Showing the Counties and Districts from which Patients have been admitted during the year ending October 31st, 1923, and the Hospitals they were assigned to.

Counties and Districts.	Admitted during Year.	No. received under warrant process.	No. received by med. certificates.	Assigned to Brockville Hosp.	Assigned to Cobourg Hosp.	Assigned to Hamilton Hosp.	Assigned to Kingston Hosp.	Assigned to London Hosp.	Assigned to Mimico Hosp.	Assigned to Penetang Hosp.	Assigned to Toronto Hosp.	Assigned to Whitby Hosp.	Assigned to Orillia Hosp.	Assigned to Woodstock.	Guelph
Algoma District	24	16	8	....	2	....	1	....	8	....	5	5	3	....	..
Brant	31	2	29	....	....	24	....	....	....	....	....	2	4	1	..
Bruce	27	7	20	....	....	1	....	23	....	....	....	2	....	1	..
Carleton	79	....	79	74	....	....	1	....	....	....	....	1	3	....	..
Dufferin	17	3	14	....	....	10	6	....	....	....	....	....	1	....	..
Dundas	11	1	10	10	....	....	....	1	....	....	....	....	....	....	..
Durham	19	2	17	....	6	1	3	....	....	....	....	9	....	....	..
Elgin	22	....	22	....	....	....	....	19	....	....	....	....	2	1	..
Essex	60	5	55	....	....	....	....	59	....	....	....	....	....	1	..
Frontenac	48	1	47	1	....	....	44	....	....	....	....	1	2	....	..
Glengarry	9	....	9	7	....	....	....	....	....	....	....	1	1	....	..
Grenville	10	....	10	10	....	....	....	....	....	....	....	....	....	....	..
Grey	25	4	21	....	....	19	....	1	1	....	1	....	1	2	..
Haldimand	11	2	9	....	....	11	....	....	....	....	....	....	....	....	..
Haliburton	1	....	1	....	....	....	....	....	....	....	1	....	....	....	..
Halton	10	3	7	....	....	10	....	....	....	....	....	....	....	....	..
Hastings	28	....	28	....	1	....	20	....	....	....	....	3	3	1	..
Huron	27	2	25	....	....	....	....	23	....	....	....	....	4	....	..
Kenora	6	4	2	....	1	....	....	....	2	....	....	2	1	....	..
Kent	36	9	27	....	....	....	....	36	....	....	....	....	....	....	..
Lambton	25	3	22	....	....	1	1	22	....	....	....	....	....	1	..
Lanark	24	....	24	23	....	....	1	....	....	....	....	....	....	....	..
Leeds	40	....	40	32	....	....	5	....	....	....	....	1	1	1	..
Lennox & Addington	14	1	13	....	1	....	12	....	....	....	....	....	1	....	..
Lincoln	30	6	24	....	....	27	....	....	....	....	1	....	1	1	..
Manitoulin	2	1	1	....	....	....	....	....	1	....	....	....	....	1	..
Middlesex	94	13	81	....	....	....	....	89	....	....	....	....	4	1	..
Muskoka District	8	2	6	....	....	....	....	....	3	....	2	1	2	....	..
Nipissing District	34	22	12	....	....	....	....	....	11	....	18	3	2	....	..
Norfolk	16	4	12	....	....	14	....	1	....	....	....	....	1	....	..
Northumberland	27	2	25	....	15	....	5	....	....	....	....	1	5	1	..
Ontario	48	10	38	....	2	1	....	....	3	....	2	35	5	....	..
Oxford	31	2	29	....	....	....	....	25	....	....	....	1	4	1	..
Parry Sound District	7	3	4	....	....	....	....	....	2	....	2	1	2	....	..
Peel	14	3	11	....	....	....	....	....	11	....	2	1	....	....	..
Perth	26	2	24	....	....	3	....	20	....	....	....	....	1	2	..
Peterborough	33	8	25	....	12	....	....	....	4	....	2	8	7	....	..
Prescott	12	....	12	10	....	....	....	....	....	....	....	....	2	....	..
Prince Edward	6	2	4	....	....	....	4	....	....	....	....	....	2	....	..
Rainy River District	4	2	2	....	....	....	....	....	....	....	3	....	1	....	..
Renfrew	27	....	27	2	....	....	21	....	....	....	....	....	2	2	..
Russell	7	....	7	6	....	....	....	....	....	....	....	....	1	....	..
Simcoe	68	17	51	....	7	....	....	....	38	....	9	5	9	....	..
Stormont	21	....	21	20	....	....	1	....	....	....	....	....	....	....	..
Sudbury	20	8	12	....	....	....	....	....	7	....	6	....	7	....	..
Temiskaming	28	21	7	....	2	....	....	....	11	....	8	4	3	....	..
Thunder Bay District	39	26	13	....	....	....	....	....	12	....	18	7	2	....	..
Victoria	22	10	12	....	9	1	....	....	3	....	5	3	....	1	..
Waterloo	28	6	22	....	....	22	....	1	....	....	....	1	2	2	..
Welland	32	2	30	....	....	30	....	....	....	....	....	....	2	....	..
Wellington	35	9	26	1	....	28	....	....	....	....	2	3	1	....	..
Wentworth	124	53	71	....	....	112	....	....	....	....	3	5	4	....	..
York	774	132	642	1	49	3	2	....	5	....	463	174	68	9	..
Unascertained	31	....	31	....	1	....	2	....	....	....	....	1	1	....	26
Other Provinces	14	4	10	2	....	1	....	5	....	....	3	2	1	....	..
Total	2266	435	1831	199	108	319	129	325	122	....	556	283	169	30	26

Table No. 5a.

Showing the counties and districts from which the entire number of patients admitted to the Hospitals have been received; also the counties and districts from which the patients remaining in residence the 31st October, 1923, were originally admitted.

Counties and Districts	Patients in residence 31st October, 1923												Total.
	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetang Hospital.	Toronto Hospital.	Whitby Hospital.	Orillia.	Woodstock.	Guelph.	
Algoma District	....	2	.....	3	2	29	26	12	16	11	....	....	101
Brant	....	4	105	....	5	1	1	1	3	20	5	....	145
Bruce	....	4	4	....	108	....	3	....	1	11	3	....	134
Carleton	271	21	2	27	.....	1	3	....	3	40	4	....	372
Dufferin	....	7	30	17	.....	1	2	....	.....	6	2	....	65
Dundas	27	1	1	2	.....	2	....	1	.....	6	3	....	43
Durham	3	12	1	9	.....	5	....	1	19	12	1	....	63
Elgin	....	5	2	....	105	....	2	....	.....	18	6	....	138
Essex	2	7	3	....	159	....	....	1	.....	18	7	....	197
Frontenac	10	3	.....	106	.....	....	3	1	4	23	1	....	151
Glengarry	35	2	1	6	.....	....	....	....	1	6	....	....	51
Grenville	45	4	....	3	.....	....	....	1	.....	3	....	....	56
Grey	....	12	103	1	5	6	8	....	3	16	8	....	162
Haldimand	1	3	45	....	.....	1	1	....	.....	4	....	....	55
Haliburton	....	2	.....	1	.....	2	....	....	.....	5	....	....	10
Halton	1	5	37	....	1	1	....	1	.....	1	1	....	48
Hastings	5	5	.....	112	.....	1	4	....	6	35	5	....	173
Huron	2	1	2	....	127	....	2	4	3	16	4	....	161
Kenora	....	1	1	....	.....	5	....	....	2	1	....	....	10
Kent	1	5	.....	....	114	1	....	....	.....	9	4	....	134
Lambton	3	3	2	2	108	....	1	....	1	10	6	....	136
Lanark	78	5	.....	9	.....	....	1	1	.....	9	2	....	105
Leeds	96	8	.....	13	.....	....	....	....	1	9	3	....	130
Lennox and Addington	2	1	.....	42	.....	....	2	....	.....	15	....	....	62
Lincoln	....	3	66	....	.....	....	....	....	2	15	6	....	92
Manitoulin	....	....	....	....	.....	7	....	1	2	1	1	....	12
Middlesex	2	22	1	1	312	1	2	1	3	40	11	....	396
Muskoka District	....	1	2	....	.....	9	13	1	6	12	1	....	45
Nippising District	1	1	6	....	.....	43	17	23	3	15	....	....	109
Norfolk	....	....	44	1	32	....	2	....	.....	8	1	....	88
Northumberland	3	15	2	62	2	2	6	2	10	18	3	....	125
Ontario	....	5	3	2	.....	33	16	4	52	33	3	....	151
Oxford	1	2	4	....	103	1	2	....	2	26	9	....	150
Parry Sound Dist	....	....	1	....	.....	28	10	3	6	16	....	....	64
Peel	1	2	4	1	.....	44	3	7	5	14	2	....	83
Perth	3	8	6	....	107	2	....	1	.....	13	4	....	144
Peterborough	1	21	.....	8	.....	43	5	5	17	19	1	....	120
Prescott	67	8	.....	3	.....	....	2	....	.....	11	....	....	91
Prince Edward	....	....	.....	35	.....	1	....	1	1	11	....	....	49
Rainy River Dist	....	....	.....	....	.....	7	7	3	2	3	....	....	22
Renfrew	8	3	.....	88	.....	....	3	1	1	14	4	....	122
Russell	50	....	1	1	.....	....	....	....	.....	7	1	....	60
Simcoe	3	11	11	....	2	114	45	9	20	59	5	....	279
Stormont	77	7	.....	2	.....	....	1	....	1	5	1	....	94
Sudbury	....	....	.....	....	.....	17	1	3	3	13	....	....	37
Temiskaming	4	2	1	....	.....	21	14	11	14	8	....	....	75
Thunder Bay Dist	....	3	3	1	1	44	1	18	15	5	2	....	93
Victoria	....	9	2	3	.....	46	10	7	8	12	3	....	100
Waterloo	....	7	136	....	2	1	1	1	4	20	4	....	176
Welland	1	8	110	2	.....	1	1	....	1	7	1	....	132
Wellington	1	18	110	....	1	1	4	....	11	23	4	....	173
Wentworth	3	12	402	4	1	2	7	5	7	70	10	....	523
York	15	102	29	12	2	83	81	655	818	402	62	....	2,261
Unascertained	....	2	4	5	23	....	19	....	21	6	....	91	171
Other Provinces	4	....	6	....	10	1	....	1	7	1	2	....	32
Totals	827	395	1,293	584	1,332	608	332	787	1,105	1,211	206	91	8,771

TABLE No. 6.

Showing the assigned causes of insanity in the cases admitted during the year.

Causes.	Men.	Women.	Total.	Inherited Predisposition.			Unascertained.
				Men.	Women.	Total.	
MORAL							
Adverse conditions (such as loss of friends, business troubles, etc.	22	52	74	6	17	23	30
Mental strain, worry and overwork (not included in above)	71	106	177	27	37	64	58
Religious excitement	5	13	18	.....	3	3	11
Love affairs, including seduction	9	12	21	.....	3	3	10
Fright and nervous shock	1	17	18	1	8	9	3
PHYSICAL							
Alcoholism	45	6	51	8	1	9	13
Sexual excess	1	2	3	.....	.....	.....	.....
Venereal diseases	67	18	85	3	2	5	31
Masturbation	7	.....	7	.....	.....	.....	3
Isolation	3	1	4	1	0	1	2
Accident or injury	15	7	22	4	3	7	10
Pregnancy	.....	15	15	.....	4	4	10
Parturition and puerperium	.....	30	30	.....	12	12	9
Lactation	.....	5	5	.....	2	2	.....
Climacteric period	3	27	30	2	12	14	6
Fevers	3	.....	3	.....	.....	.....	3
Privation and overwork	2	10	12	2	5	7	5
Epilepsy	36	22	58	9	9	18	11
Other convulsive diseases	2	.....	2	.....	.....	.....	.....
Diseases of brain and skull	215	218	433	4	1	5	.....
Senility	105	79	184	12	4	16	48
Exopthalmic goitre	.....	2	2	.....	.....	.....	.....
Epidemic influenza	5	10	15	2	4	6	8
Abuse of drugs	14	6	20	1	0	1	5
Loss of special sense	3	2	5	.....	.....	.....	3
Uraemia	.....	2	2	.....	.....	.....	1
Other auto-infection	2	1	3	.....	.....	.....	.....
Other bodily diseases	25	51	76	5	14	19	24
HEREDITARY							
Congenital defect	82	83	165	22	38	60	31
Unascertained	327	226	553	458	353	811	236
Not insane	1	3	4	1	2	3	.....
Totals	1,071	1,026	*2,097	568	534	1,102	571

*This does not include Orillia.

TABLE No. 7.

Showing hereditary tendency to insanity in patients admitted during the year.

	Admitted During Year.		
	Male.	Female.	Total.
Paternal Branch	68	74	142
Maternal Branch	65	95	160
Paternal and Maternal Branches	17	29	46
Collateral Branches	77	74	151
No hereditary tendency	376	420	796
Unascertained	562	407	969
Not Insane	....	2	2
Totals	1,165	1,101	2,266

TABLE No. 8.

Showing summary of probational discharges during the year.

	Male.	Female.	Total.
Number Granted Probational Discharge	445	560	1,005
Discharged, Recovered while on Probation	122	134	256
Discharged, Improved while on Probation	121	149	270
Discharged, Unimproved while on Probation	8	10	18
Died while on Probation	1	3	4
Returned to Hospital	118	132	250
Absent on Probation on October 31st, 1923	101	146	247

TABLE No. 9.

Giving summary of the discharges for the year ended October 31st, 1923.

	Male.	Female.	Total.
Discharged, Recovered	219	191	410
" Improved	216	243	459
" Unimproved	42	26	68
" Deported	32	13	45
" Eloped	38	6	44
" Not Insane	1	3	4
Total Number of Discharges	548	482	1,030

TABLE No. 10.

Showing daily average population, admissions, recoveries, deaths and percentage of recoveries for year ending October 31st, 1923

Hospitals	Daily Average Population tion	Admissions	Recoveries	Deaths	Percentage of Recoveries		Percentage of Deaths
					On admissions	On average daily population	
Brockville	826.155	199	71	76	35.61	8.60	9.20
Cobourg	383.77	108	4	23	3.70	1.04	5.91
Hamilton	1246	319	14	71	4.31	1.10	5.61
Kingston	575.7	129	33	45	25.51	5.70	7.82
London	1264	325	96	107	29.50	7.51	8.47
Mimico	612.87	122	35	42	28.61	5.70	6.85
Penetang	343.8	.....	.....	14	.....	.....	4.07
Toronto	737	556	101	143	18.11	13.70	19.40
Whitby	1024	283	54	61	19.08	5.21	5.95
Orillia	1148	169	.....	50	.....	.....	4.35
Woodstock	205.36	30	.....	13	.....	.....	6.34
Guelph	85	26	2	3	7.61	2.31	3.50
Totals	8451.655	2,266	410	648	18.1	4.81	7.61

TABLENo. 11.

Showing general movements and result of treatment of patients in Hospitals for Insane in Province from January 1st, 1882, to October 31st, 1923.

	Average daily population.			Number of patients admitted.			Number of patients recovered.			Number discharged improved, unimproved and deported.			Number of patients who died.			Percentages of recoveries to average population.			Percentage of deaths to average population.			Number of patients remaining in residence		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Average 1882 to 1891	1,449	1,431	2,880	289	270	559	85	86	171	37	43	80	90	73	163	5.90	6.21	6.05	6.25	5.08	5.66	1,464	1,524	2,988
Average 1892 to 1901	2,034	2,094	4,128	371	386	757	114	121	235	42	50	92	134	107	241	5.60	5.77	5.69	6.39	5.06	5.72	2,042	2,109	4,151
Average 1902 to 1911	2,484	2,702	5,186	499	527	1,026	140	154	294	90	88	178	169	160	329	5.65	5.74	5.70	6.68	5.88	6.28	2,499	2,726	5,225
Average 1912 to 1921	2,992	3,161	6,153	824	818	1,642	174	172	346	198	194	392	274	248	522	5.83	5.47	5.68	8.92	7.90	8.42	3,200	3,408	6,608
1922.....	3,874	4,167	8,041	1,030	1,203	2,133	187	167	354	266	306	572	294	303	597	4.88	4.01	4.40	7.73	7.15	7.43	4,009	4,355	8,364
1923.....	4,065	4,387	8,453	1,165	1,101	2,266	219	191	410	298	283	581	339	309	648	5.39	435	4.87	8.31	7.07	7.69	4,213	4,558	8,771

TABLE No. 12.

Showing the causes of death of patients who died during the year ending October 31st, 1923.

Cause of Death.	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetang Hospital.	Toronto Hospital.	Whitby Hospital.	Guelph Hospital.	Orillia Hospital.	Woodstock Hospital.	Total.
Specific Infectious Diseases:—													
Typhoid Fever	...	...	...	...	1	...	...	...	...	...	...	...	1
Influenza	3	2	...	...	...	...	1	...	...	...	...	...	6
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	...	...	...	...	...	...	...	...	...	...	1	...	1
Erysipelas	...	...	1	...	1	...	...	3	...	...	...	...	5
Septicæmia	...	...	3	...	1	...	...	2	...	...	2	...	8
Dysentery	...	1	...	...	9	...	...	1	...	...	3	...	14
Syphilis	...	1	...	...	1	...	...	...	...	...	...	...	2
Tuberculosis	8	6	2	3	6	7	4	1	7	...	12	...	56
Constitutional Diseases:—													
Rheumatism	...	...	...	...	...	...	...	...	...	...	...	...	...
Arthritis Deformans	...	...	...	...	...	...	...	...	...	...	...	...	...
Diabetes Mellitus	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Digestive System:—													
Mouth, salivary glands	...	...	...	...	...	...	...	...	...	...	...	...	...
Pharynx	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonsils	...	...	...	...	...	1	...	...	...	...	...	...	1
Œsophagus	1	...	...	...	...	...	...	...	...	...	...	...	2
Enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Intestines and Stomach:—													
Diseases of the Liver	...	...	...	...	1	...	...	...	...	...	...	...	1
" " Pancreas	...	...	...	...	...	...	...	...	...	...	...	...	...
" " Peritoneum	1	...	...	...	2	3	1	...	2	...	1	...	10
Intestinal Obstruction	...	...	...	...	...	...	...	...	...	...	...	...	...
Bowel and Colitis	...	...	1	...	...	...	...	...	...	...	...	...	1
Diseases of the Respiratory System:—													
Diseases of the Nose and Larynx	...	...	...	...	...	...	...	...	...	...	...	...	...
" " Bronchi	4	...	2	...	4	6	...	5	...	...	1	...	22
" " Lungs	23	1	8	8	12	2	...	14	11	...	17	1	97
" " Pleura	...	...	...	...	...	...	...	1	...	...	...	...	1
Diseases of the Circulatory System:—													
Diseases of the Pericardium	...	...	...	5	...	...	...	...	...	...	...	...	5
" " Heart	4	4	4	3	7	5	1	10	12	...	2	1	53
Arterio-sclerosis	1	...	1	1	19	4	1	10	2	...	...	...	39
Aneurism	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Blood and Ductless Glands:													
Anæmia	...	...	1	...	2	...	...	...	...	...	...	...	3
Pernicious Anæmia	...	...	...	...	...	...	...	...	1	...	...	...	1
Leucæmia	...	...	...	...	...	...	...	...	...	...	...	...	...
Exophthalmic Goitre	1	...	...	...	...	...	...	...	...	...	...	...	1
Diseases of the Genito-Urinary System	...	...	1	2	1	...	1	...	3	...	...	...	8
Carried forward	46	15	24	22	67	28	9	48	38	...	39	2	338

TABLE No. 12—*Continued.*

Showing the causes of death of patients who died during the year ending October 31st, 1923.

Cause of Death.	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetang Hospital.	Toronto Hospital.	Whitby Hospital.	Guelph Hospital.	Orillia Hospital.	Woodstock Hospital.	Total.
Totals—Brought forward	46	15	24	22	67	28	9	48	38	...	39	2	338
Diseases of the Nervous System:—													
Diseases of the Nerves	...	...	...	...	...	...	...	...	...	...	...	...	...
" " Spinal Cord	...	...	...	1	...	...	...	...	...	...	1	...	2
" " Meninges	...	...	...	...	...	...	...	...	1	...	...	...	1
Organic Diseases of the Brain,— (Tumor, Abscess, Embolism, Thrombosis, Hemorrhage, and other gross lesions)	5	...	3	1	3	6	4	8	3	...	...	...	33
Functional Nervous Diseases, (Paralysis Agitans, Chorea, Eclampsia, Hysteria)	...	...	1	...	3	...	...	3	...	...	...	...	7
Epilepsy	4	...	3	...	4	2	...	1	...	...	5	11	30
Mental Diseases:—													
Exhaustion of Acute Mental Disease	3	...	11	3	8	...	...	17	3	...	...	...	45
Exhaustion of Chronic Mental Disease	3	7	6	...	9	...	...	...	11	...	2	...	38
General Paresis	5	...	6	8	8	1	...	34	2	...	...	...	64
Tabo Paresis	...	...	...	...	1	...	...	...	...	...	...	...	1
Intoxications:—													
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...
Morphinism	...	...	...	...	...	...	...	...	...	...	...	...	...
Metallic Poisoning	...	...	...	...	...	...	...	...	...	...	...	...	...
Heat Stroke	...	...	...	...	...	...	...	...	...	...	...	...	...
Debility of Old Age	5	...	13	10	...	1	...	26	3	...	...	...	58
Accident	...	...	...	...	1	...	...	1	...	...	1	...	3
Suicide	1	1	2	...	...	...	...	...	...	...	...	...	4
Surgical Diseases	2	...	...	...	1	...	...	...	...	...	1	.	4
Gynæcological Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant New Growths, or Cancer	2	...	1	...	...	3	1	3	...	...	...	...	10
Pellagra	...	...	...	...	2	1	...	2	...	...	...	...	5
Unknown or (died on probation)	...	...	1	...	...	...	...	...	...	3	1	...	5
Totals	76	23	71	45	107	42	14	143	61	3	50	13	648

TABLE No. 13.

Showing form of mental disease of patients admitted, discharged and died during the year.

Mental Disease.	Admitted.			Discharged.			Died.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Infection Psychoses:—									
(a) Fever Delirium					1	1			
(b) Infection Delirium	1	12	13		3	3		3	3
(c) Post Infection Psychoses	2	2	4		3	3	1	3	4
Exhaustion Psychoses:—									
(a) Collapsed Delirium	1	6	7	1	2	3	3	5	8
(b) Acute Confusional Psychoses	13	24	37	7	13	20		4	4
(c) Neurasthenia	7	6	13	7	4	11	2		2
(d) Psychasthenia		1	1		1	1			
Intoxication Psychoses:—									
(a) Acute Intoxications	16	6	22	16	3	19		1	1
(b) Chronic Intoxications				1	1	2			
(a) Alcoholism (acute and chronic)	17	2	19	14	1	15	1		1
(b) Delirium Tremens									
(c) Korsakow's Psychoses	1		1						
(d) Acute Alcoholic Hallucinosis									
(e) Alcoholic Hallucinatory Dementia	4		4	3		3			
(f) Alcoholic Paranoia	1		1	1		1			
(g) Alcoholic Paresis									
(h) Morphinism	12	8	20	8	7	15			
(i) Cocainism				3		3			
(j) Pellagra		4	4		1	1		4	4
Thyroigenous Psychoses:—									
(a) Mixoedematous Psychoses									
(b) Cretinism								1	1
(c) Hyperthyrogenous									
(d) Exophthalmia Goitre									
Dementia Praecox:—									
(a) Hebaphrenic	112	92	204	41	42	83	21	11	32
(b) Catatonic	126	155	281	65	64	129	25	51	76
(c) Paranoid	138	128	266	47	49	96	13	24	37
General Paresis	75	18	93	15	5	20	60	9	69
Organic Dementias:—Traumatic									
(c) Cerebral Sclerosis	1		1						
(b) Huntingdon's Chorea	1	3	4		1	1	1	3	4
(c) Multiple Sclerosis	2	2	4						
(d) Cerebral Syphilis		1	1						
(e) Tabetic Psychoses	2		2	1		1			
(f) Arterio-sclerotic Psychoses	29	22	51	13	5	18	10	7	17
(g) Cerebral Tumor, Abscess, Haemorrhage	5	1	6				1	3	4
(h) Traumatic Dementia	1		1						
(i) Sunstroke									
Involution Psychoses:—									
(a) Melancholia	26	72	98	16	41	57	14	21	35
(b) Pre-senile Delusional Psychoses	10	16	26	5	5	10	1	5	6
(c) Senile Dementia	119	99	218	18	17	35	83	84	167
(d) Presbyphrenia									
Totals—Carried forward	722	680	1,402	282	269	551	236	239	475

TABLE No. 13.—*Continued.*

Showing form of mental diseases of patients admitted, discharged and died during the year

Mental Disease.	Admitted.			Discharged.			Died.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Totals—Brought forward	722	680	1,402	282	269	551	236	239	475
Manic Depressive Psychos:—									
(a) Manic States	84	107	191	69	76	145	24	23	47
(b) Depressed States	74	92	166	58	59	117	10	4	14
(c) Mixed States	8	11	19	4	8	12	2	2	4
(d) Paranoia	4	4	8	....	2	2	1	....	1
Psychoses from Constitutional Neuroses:—									
(a) Epileptic Psychoses	42	29	71	12	4	16	17	4	21
(b) Hysterical Psychoses	2	8	10	2	8	10	....	....	....
(c) Sexualis Psychopathia	....	2	2	....	....	....	....	....	....
(d) Post Apoleptic	....	....	....	....	....	....	....	....	....
(e) Con. Psychical Psychoses	....	1	1	....	1	1	....	....	....
States of Deficient Mental Development:—									
(a) Imbecility	136	104	240	46	32	78	26	20	46
(b) Idiocy	36	28	64	7	2	9	12	9	21
(c) Hypochondriac	....	....	....	....	....	....	....	....	....
Not Diagnosed	16	15	31	5	4	9	3	....	3
Not Insane	2	3	5	3	4	7	....	....	....
Woodstock	13	17	30	8	5	13	5	8	13
Guelph	26	....	26	2	....	2	3	....	3
Totals	1,165	1,101	2,266	498	474	*972	339	309	648

*Includes 31 deports.

TABLE No. 14.

Periods.	Alleged duration of insanity prior to admission.	Length of residence of those remaining in Hospital on October 31st, 1923.	Periods of treatment of those who were discharged recovered during the year.	Periods of treatment of those who were discharged improved during the year.	Periods of treatment of those who were discharged unimproved during the year.	Periods of treatment of those who died during the year.
Under month	258	167	34	25	21	91
From 1 to 2 months	146	144	27	23	2	30
" 2 " 3 "	109	142	27	26	12	19
" 3 " 4 "	125	134	33	35	4	23
" 4 " 5 "	84	149	41	31	2	25
" 5 " 6 "	131	166	45	36	2	17
" 6 " 9 "	150	471	87	91	8	32
" 9 " 12 "	138	205	49	63	6	24
" 12 " 18 "	139	453	38	41	7	45
" 18 months to 2 years	81	365	12	29	3	37
" 2 to 3 years	167	682	12	30	....	61
" 3 " 4 "	82	1,436	7	20	....	54
" 4 " 5 "	90	363	3	7	....	15
" 5 " 10 "	129	1,180	1	9	....	54
" 10 " 15 "	81	828	....	4	....	32
" 15 " 20 "	46	661	....	3	2	26
" 20 years and upwards	73	1,134	....	4	....	60
Unknown	234	91	2	....	....	3
Not insane	3	....	....	....	....	....
Totals	2,266	8,771	*416	†477	‡69	648

*Includes 6 deports. †Includes 18 deports. ‡Includes 1 deport.

TABLE No. 15

Statement showing acreage, valuation, etc.

Hospitals	Date of Opening	Total acreage	Area under cultivation, Acres	Acreage in Grounds and Buildings	Value of Real Estate
Brockville	1894	569	544	25	$64,860
Cobourg	1904	40	10	30	16,500
Hamilton	1876	527	462	65	245,500
Kingston	1876	164	106	58	68,600
London	1870	537	469	68	165,800
Mimico	1890	*380	298	82	243,500
Orillia	1876	456	408	48	47,090
Penetang	1904	383	373	10	13,220
Toronto	1841	24	.....	24	300,000
Woodstock	1905	323	307	16	65,900
Whitby	1919	640	480	160	128,000
Total	.....	.....	.....	.....	$1,358,970

*Includes 100 acres rented.

TABLE No. 16.

Showing the number of officers and employees in each Hospital.

Occupation.	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetang Hospital.	Toronto Hospital.	Whitby Hospital.	Orillia Hospital.	Woodstock Hospital.	Total.
Superintendents	1	1	1	1	1	1	1	1	1	1	1	11
Physicians	1	1	4	2	4	3	1	2	3	3	1	25
Bursars	1	1	1	1	1	1	1	1	1	1	....	10
Storekeepers and Assistants	2	....	3	1	2	1	....	1	2	1	....	13
Matron and Assistants	1	1	2	....	2	1	....	1	1	1	1	11
Office Staff (Clerks and Stenographers)	4	2	5	3	4	5	1	4	6	1	2	37
Engineers, Stokers and Assistants	11	6	13	8	14	7	5	9	11	8	2	94
Farmers and Gardeners	11	2	17	5	12	7	5	1	18	7	7	92
Dentists	....	....	1	....	1	1	....	....	....	....	....	3
Attendants, Male	49	1	69	42	63	37	12	39	47	31	12	402
Female Nurses	50	36	48	51	64	39	14	67	71	32	8	480
Domestic Help (Cooks, etc.)	15	8	22	11	36	15	10	17	24	21	7	186
Mechanics	6	2	13	5	13	5	5	6	11	8	1	75
Totals	152	61	199	130	217	123	55	149	196	115	42	1,439

TABLE No. 17.

Statement of revenue from paying patients, farm and miscellaneous revenue.

Hospital.	From Paying Patients.	From Farm and Miscellaneous.	Total.
Brockville	38,548 80	2,005 44	40,554 24
Cobourg	8,925 05	.....	8,925 05
Hamilton	68,415 85	7,492 65	75,908 50
Kingston	28,064 16	2,123 07	30,187 23
London	68,942 83	7,277 44	76,220 27
Mimico	33,203 57	1,302 83	34,506 40
Penetanguishene	2,376 59	1,544 04	3,920 63
Toronto	43,267 97	8,724 27	51,992 24
Whitby	55,236 08	6,959 06	62,195 14
Orillia	22,739 07	1,211 58	23,950 65
Woodstock	25,984 14	1,599 40	27,583 54
Guelph	10,364 51	.....	10,364 51
Totals	$406,068 62	$40,239 78	$446,308 40

Total revenue for last year, $409,677.84.

Revenue from railway taxation, under 6 Edward VII, Cap. 9, sec. 4, sub-sec. 2, $76,948.10

TABLE No. 18.

STATEMENT.

Showing the Expenditure on Maintenance under the different headings of the estimates for the year ending October 31st, 1923.

Headings of Estimates.	Brockville Hospital.	Cobourg Hospital.	Hamilton Hospital.	Kingston Hospital.	London Hospital.	Mimico Hospital.	Penetang Hospital.	Toronto Hospital.	Whitby Hospital.	Orillia Hospital.	Woodstock Hospital.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Medicines and medical comforts	4,514 62	1,325 38	8,319 29	4,359 38	5,855 45	3,666 31	1,110 11	5,057 85	7,978 21	4,993 62	1,645 82
Groceries, provisions and butchers' cattle	65,790 94	30,164 81	85,299 31	56,348 84	92,412 88	49,496 28	22,607 00	86,784 13	90,539 88	48,975 62	16,631 93
Fuel, light and water	77,073 78	36,475 40	87,950 52	71,327 20	92,826 45	52,786 92	25,773 50	97,576 03	110,968 84	73,486 65	18,784 31
Clothing	14,372 35	5,408 65	16,180 26	12,094 88	21,580 25	10,182 81	6,971 82	17,832 88	23,039 57	24,055 69	570 98
Laundry and cleaning	5,072 94	1,821 23	4,818 47	4,600 36	8,206 64	5,640 16	1,441 42	5,038 77	9,792 40	6,389 50	1,973 55
Furniture and furnishings	20,705 12	4,873 02	13,085 85	11,976 75	26,415 92	11,221 87	3,339 78	27,181 10	17,356 65	19,074 87	3,690 20
Office expenses	1,483 31	568 25	1,391 79	1,269 04	1,669 63	1,283 74	230 76	1,061 60	1,191 30	1,173 01	340 63
Farm expenses	9,084 20	1,820 57	15,306 50	5,226 69	12,823 76	4,549 85	4,963 88	1,698 95	15,671 95	6,730 90	5,041 88
Contingencies	2,280 23	1,091 45	4,063 67	2,296 04	3,389 27	1,956 94	695 81	1,843 71	3,504 71	3,327 31	198 30
Salaries	120,524 88	41,888 54	168,296 73	100,677 76	172,645 18	92,984 28	51,993 73	101,248 79	153,240 87	110,899 76	33,714 97
Totals	320,902 37	125,437 30	404,712 39	270,176 94	437,825 43	233,769 16	119,127 81	345,323 81	433,284 38	299,106 93	82,592 57

TABLE

Comparative Statement of Average Maintenance Cost per Capita

	Brockville		Cobourg		Hamilton		Kingston		London	
	This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year
Days' Residence of Patients	293,295	288,737	136,565	130,250	443,158	407,539	210,234	207,530	462,996	437,222
Average Number of Patients	804	791	374	357	1,214	1,117	576	569	1,268	1,198
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Medicines	1.46	1.44	.88	.64	1.70	1.76	1.91	1.63	1.22	1.22
Provisions	18.18	18.26	15.43	15.11	15.45	17.18	19.26	19.33	17.39	17.86
Fuel, Light and Water	17.77	15.30	18.69	13.32	14.76	13.24	24.32	20.33	15.23	14.65
Clothing	4.69	4.79	2.90	5.27	3.17	3.86	4.39	4.31	3.49	4.77
Laundry and Cleaning	1.55	1.45	1.28	1.25	.89	1.07	2.08	1.91	1.62	1.71
Furniture & Fur'gs.	6.25	5.83	2.68	2.75	2.47	2.41	4.81	3.83	5.15	5.35
Office Expenses	.46	.58	.39	.33	.31	.35	.57	.53	.33	.42
Salaries	33.26	32.88	26.29	26.14	30.14	30.95	39.39	39.25	29.32	30.23
Allowances	8.32	8.23	6.04	7.16	10.33	9.67	8.99	9.54	6.33	6.69
Farm and Garden	6.60	6.50	1.05	1.60	5.97	9.00	3.71	3.63	3.94	4.17
Contingencies	.76	.55	.78	.53	.84	.69	1.04	.94	.70	.58
Total Gross Per Capita Cost	99.30	95.81	76.41	74.10	86.03	88.18	110.47	105.23	84.72	87.65
Less Total Recovery Per Capita	21.76	23.32	6.06	6.87	23.10	28.00	16.43	23.65	19.35	25.36
Net Per Capita Cost	77.54	72.49	70.35	67.23	62.93	60.18	94.04	81.58	65.37	62.29
Repairs to Buildings, etc	11.03	10.12	5.54	2.72	8.54	5.95	16.30	9.88	9.18	7.70
Total Per Capita Burden Payable by Province	88.57	82.61	75.89	69.95	71.47	66.13	110.34	91.46	74.55	69.99

No. 19.

per Day for the Twelve Months ending October 31st, 1923.

Mimico		Orillia		Penetang		Toronto		Woodstock		Whitby	
This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year
218,333	219,302	418,734	392,495	125,544	130,661	268,069	276,903	75,237	72,990	373,079	340,221
598	601	1,147	1,075	344	358	734	704	206	200	1,022	932
Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1.49	1.72	1.15	.88	.81	.87	1.77	1.48	1.83	1.98	2.07	1.58
19.62	19.79	10.52	10.88	14.85	15.35	21.56	19.76	17.39	18.64	18.77	19.93
17.14	16.48	11.06	10.29	14.76	15.60	23.27	17.77	16.66	17.71	22.33	22.26
3.95	3.46	4.21	4.94	3.79	4.79	4.51	4.15	.47	.80	5.00	5.18
2.32	2.39	1.38	1.49	1.13	3.69	1.66	1.86	2.20	2.50	2.15	6.08
3.78	3.82	3.79	3.52	2.85	2.66	7.57	6.14	3.67	1.73	3.36	3.70
.55	.49	.26	.27	.17	.19	.37	.42	.41	.50	.30	.27
32.97	33.12	20.10	20.66	29.79	26.87	32.54	31.02	32.62	32.97	33.72	34.47
7.24	7.42	3.48	3.33	7.01	6.58	7.34	6.16	9.45	9.35	6.92	7.44
4.19	5.16	2.50	2.51	5.66	5.46	.60	.58	11.77	13.64	6.42	7.58
.87	.68	.71	.46	.51	.49	.62	.57	.24	.28	.91	1.19
94.12	94.53	59.16	59.23	81.33	82.55	101.81	89.91	96.71	100.10	101.95	109.68
20.99	27.55	8.57	10.80	11.87	11.28	17.64	23.66	47.97	47.72	20.81	23.58
73.13	66.98	50.59	48.43	69.46	71.27	84.17	66.25	48.74	52.38	81.14	86.10
8.54	6.86	4.57	2.95	17.00	1.19	49.38	8.63	7.90	4.40	7.12	4.18
81.67	73.84	55.16	51.38	86.46	72.46	133.55	74.88	56.64	56.78	88.26	90.28

APPENDIX

TO FIFTY-SIXTH ANNUAL REPORT UPON THE ONTARIO HOSPITALS FOR THE INSANE AND CONTAINING THE ANNUAL REPORTS OF THE SUPERINTENDENTS OF THE HOSPITALS IN BROCKVILLE, HAMILTON, MIMICO, PENETANGUISHENE, TORONTO, WHITBY, ORILLIA, WOODSTOCK, AND HOMEWOOD SANATORIUM, GUELPH.

THE ONTARIO HOSPITAL, BROCKVILLE.

Brockville, November 21st, 1923.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ont.

Sir:—

I have the honour to submit herewith the Annual Report of the Ontario Hospital, Brockville, for the year ending October 31st, 1923.

During the year 199 patients were admitted, the largest number admitted in any one year since the opening of the hospital. There were 102 men and ninety-seven women, the total under treatment during the year being 1,026.

The discharges numbered 114, of whom seventy-one were discharged as recovered, thirty-nine as improved, three unimproved, and one as not insane. There were seventy-six deaths. The discharges, deaths, elopements and deportations made up a total of 199, equalling the number of admissions, so that our remaining population is the same as at the end of last year, 827.

During the year very extensive repairs and alterations have been made to the buildings. Numerous repairs were also necessary to the brickwork on the outside walls.

The alterations to the former engineer's residence, changing it into a nurses' home, were completed, and the building is now occupied by fourteen nurses. Although small it is very attractive and is much appreciated by the nurses in residence. Its occupation also relieved the congestion in the wards, as the former nurses' rooms are now occupied by patients. It is hoped that in the near future a larger nurses' home may be built.

Our nursing staff has increased in number, there being now forty-eight nurses in the hospital and this increase has enabled us to place nurses on three of the men's wards, two in the reception hospital and one in the main building. The placing of nurses on these men's wards has had a very beneficial effect and is much appreciated by the patients.

The farmer's cottage was unfortunately burnt down in the summer and so far has not been rebuilt.

The only changes in the medical staff was the resignation of Dr. Brown, who left the service in July. No appointment has been made in his place. We were fortunate in having the services of four internes during the summer months, all of them being young men of excellent character and ability.

I have the honour to be, sir,

Your obedient servant,

W. K. Ross,
Superintendent.

THE ONTARIO HOSPITAL, HAMILTON.

December 15th, 1923.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ont.

Sir:—

It affords me very great pleasure to present to you the forty-eighth Annua Report of this hospital, which is for the year ending October 31st, 1923.

The number of patients coming under our care was slightly less than during the previous twelve months—319 in number—but their age average was considerably higher and the net population has been increased by ninety-nine.

The general health has been excellent and we have had no epidemic illness of any kind.

As we are each year receiving a considerable number of cases of paresis, we have made an application to the Minister of Health—Dr. Forbes Godfrey—for a supply, when it is available, of the newer arsenical preparation—tryparsanide—which gives promise of being most effective. So far salvarsan and neo-salvarsan have not been found curative in this disease but they will ameliorate and delay the degenerative process.

The pathologist has continued energetically to make routine, and where the case demanded, special examination of blood and spinal fluid and to administer treatment with salvarsan and neo-salvarsan in cases of specific origin, and his report is hereto attached.

The report of the dentist also shows that she spent forty days at the hospital and in all did 1,756 operations of various natures, or forty-four per day.

Our cattle still continue their creditable rate of production and the past year shows that with an average of thirty-eight head milking—eight of whom were two-year-old heifers with their first calves—the average has been 12.691 pounds each, whereas Ontario's present average is 3.700 pounds per annum. Every visitor to our barn comments on the uniform size and formation; evident productive qualities of the animals, and the airy and commodious quarters in which they are housed.

We are still very much in need of increased acreage for pasturage and trust that during the coming season the purchase of a property adjoining ours which has been offered at a reasonable price may be consummated.

The purchase of the two and a half ton heavy-duty International truck early in the year has been amply justified, as evidenced by the great saving in freight and express on brick and tile from the Mimico clay plant; the transfer of weekly supplies of meat, etc., from the Guelph abbatoir; the transfer from Toronto of insulating cork, etc., for the cold-storage buildings and numerous other supplies in greater or less amounts. This saving should within three years pay in full the primary expense.

New Work

As the entrance porch to East House was beyond repair, as its foundations were gone, it was taken down and a neat stone base with tile floor erected. The columns will be replaced and a new top placed thereon ere the year closes.

At Hickory Farm the small 50x30 icehouse which was being erected to take the place of the old barn and storage has been rearranged and converted into a much-needed poultry building at a very small expense as salvage from other buildings has been largely employed in its construction.

Requirements

The occurrence of a dozen fractures, mostly involving the hip joint, among patients during the past twelve months, makes more evident than ever the need of a portable X-ray apparatus as it is without such necessary equipment absolutely impossible to accurately decide the condition present or reduction accomplished under the old method of treatment.

The architect and electricians assert that a separate building from the boiler house should be provided for the transformers of our electric plant and it is proposed to erect a 15-foot by 20-foot building adjacent to and in conformity with the architecture of the boiler house.

It will be necessary to replace the wooden silo at Hickory Farm and we propose that one of concrete block be supplied similar to that erected at the main barn a couple of years ago. Our men can make the blocks and do the erecting at a comparatively small cost as our quarry will afford a great deal of the necessary material.

Along the front of the grounds immediately north of the entrance gate we propose replacing the worn-out picket fence with one of stone and iron similar to that about the gates. The quarry will furnish the stone and our blacksmith can make the fence at a nominal cost and our own staff can erect it.

Another assistant physician should be added to our staff in order that closer attention can be given to our people and a certain amount of research work, for which we have excellent laboratory facilities, followed out.

Thanking you most sincerely for the ready assistance and advice at all times given,

I am,

Your obedient servant,

W. M. English,

Superintendent.

PATHOLOGICAL REPORT

November 1st, 1922, to October 31st, 1923.

Dr. W. M. English,

Superintendent, Ontario Hospital, Hamilton, Ont.

Sir:—

I beg herewith to submit a summary of work done in my department during the year noted above. The statistical data is very much in agreement with past years. The routine Wassermann work has yielded uniform results. This year our percentage of admissions is 5.95 per cent. compared with 6.35 per cent. in 1922, 8.17 per cent. in 1921 and 7.99 per cent. in 1920.

Autopsies are being carried on in the same manner, giving the nurses all the benefit we are able.

In addition to arsphenamine and spinal drainage in the treatment of our syphilitics, we are trying out preparations of bismuth and hope next year to have some data on its efficiency.

Total examinations of admissions, 319. Positive Wassermann reactions, 19. Percentage, 5.95%.

Diseases suffered from	Positive		Percentage
General Paresis	11	3.45%	3.45%
Dementia Praecox	3		.94%
Drug Addict	4	2.5%	1.25%
Arterio Sclerotic	1		.31%

In this analysis it is seen that syphilis has an apparent bearing in the psychosis in 3.45 per cent. only, while the clinical findings did not indicate that the remaining 2.5 per cent. were in any way due to syphilitic infection.

Respectfully submitted,

(Sgd.) W. R. Jaffrey.

	For syphilis Treatments	Autopsies.	Pos. Wass. in spinal	Pos. Wass. in blood	Neg. Wass. in spinal	Neg. Wass. in blood
1922:						
November	.....	2	.....	1	.....	22
December	.....	2	.....	4	.....	15
1923:						
January	.....	0	1	0	1	30
February	.....	3	1	3	.....	27
March	.....	2	1	1	2	21
April	3	0	1	1	1	37
May	4	1	.....	1	.....	27
June	.....	0	1	2	1	30
July	8	1	.....	0	1	22
August	7	0	1	3	.....	20
September	2	1	.....	3	1	24
October	6	2	.....	0	.....	25
	30	14	6	19	7	300

THE ONTARIO HOSPITAL, MIMICO.

January 12th, 1924.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ontario.

Sir:—

In accordance with the requirement of the Statute, I have the honour to submit the twenty-ninth Annual Report of the Ontario Hospital at Mimico for the year ending October 31st, 1923.

Of the total number admitted during the year, forty-two cases were reported to have been ill less than two months before their admission, while forty-four had been ill over a year before they had been brought to the hospital for treatment

Seventy-nine of the patients admitted were born in Canada, twenty-one in England, four in Ireland, three in Scotland, five in Austria and two in the United States.

Discharges

During the year forty-nine patients were discharged outright and their names were written off the books of the institution. Fifty-three were discharged on probation, and in this way were allowed to return to their homes or their friends on trial. Of those allowed home on trial only eight patients, five men and three women, were obliged to return to hospital on account of a recurrence of some of the mental symptoms while at home. Of the total number discharged, thirty-three had been under treatment in the hospital for a period less than a year, indicating the relative curability during the early stages of the illness.

Cement Fence at Lake at Western Boundary

The unusually low lake level this year uncovered a large quantity of stones along the beach and advantage was taken of the situation to rescue them and to place them on higher ground at the point of junction of the beach with the shore banks, and they will now serve to protect these banks from the incursion of the waves during heavy storms.

Advantage was also taken of the low-water level to build a cement wall upon the uncovered rocks of the water-lot, at the western boundary of this property. This wall extends into the lake beyond the common water level and will serve as a permanent fence outlining the eastern limit of the township road at this point, leading from the highway to the lake.

Farm

By means of the systematic application of the tuberculin test for several years to the herd of cattle, all suspicion of the existence of tuberculosis has been allayed and the more recent tests have shown complete freedom from the disease.

The yield of milk has been unusually good and the growth of hogs for fresh pork for the patients has given them a generous supply.

The crops of hay and grain and roots have been large and the quality excellent.

Filters for Water for Culinary Purposes.

During the war the efficiency of anti-typhoid inoculation was so unquestionably demonstrated that the measure was adopted at this hospital as an expedient of preventive medicine. Every employee as well as patient has been subjected ever since to this inoculation, with the result that there has been practically no typhoid at this place. At the same time the greatest care has been exercised to secure purity of water for drinking purposes, and after sterilization by steam a daily supply has been sent to every cottage. This sterilization could not be effected, however, for the water which was used for washing all the vegetables and this negligible source of contamination still remained.

During the past year a double filter was secured for the filtration of all the culinary supply, and now this filtered water is also used for drinking purposes.

Garden and Grounds

The harvest of fruits and vegetables in the garden has been abundant and the quality could not very well be improved. The quantities of potatoes and other roots which have been stored for winter use will be sufficient until the new growth of the coming year. Besides the actual value of the products of the farm and garden, the direct benefits which the patients derive from the out-door occupation is beyond computation.

The ornamental grounds have been well cared for during the year and the unusual humidity has been helpful in maintaining the verdure of the lawns and trees.

Gradual Improvement in Quality of Employees

During the past year for the first time since the beginning of the war there has been a gradual improvement in the quality of the men and women available for employees. With the imperative call to the colours during the first year of the war, this hospital lost many of the most efficient of its trained servants and during the war only those applied whose sense of duty to their country was less impelling. The consequence was that those higher qualities of character which combine to make the most efficient nurses and attendants were not always present in those who offered their services. Until the year just closed there had been no noticeable return to the old standards and it has been a very distinct relief to the management to know that the patients again enjoy the advantage of being cared for by the old type of able and considerate men and women.

In all fairness both to the qualifications and the quality of service rendered by members of our staff, their interest and unwearied application should be recognized and more fittingly rewarded.

Gratefully acknowledging your patient consideration and helpful counsel during the past year.

I have the honour to be, sir,

Your obedient servant,

N. H. Beemer,

Medical Superintendent.

THE ONTARIO HOSPITAL, PENETANGUISHENE.

W. W. Dunlop, Esq.,

Inspector,

Parliament Buildings, Toronto, Ont.

Sir:—

In accordance with statutory requirements, I have the honour to submit the twentieth Annual Report of the Ontario Hospital, Penetanguishene, for the year ending October 31st, 1923.

Population

At the beginning of the year there were one hundred and sixty men and one hundred and ninety women in residence. During the year five men and nine women died, one woman and two men eloped, and one man was discharged improved, and as we had no admissions during the year our population at the end is one hundred and fifty-two men and one hundred and eighty women, leaving us fourteen vacancies for men and twenty-three for women.

The non-filling of vacancies makes our per capita cost per patient higher than it should be as the overhead charges do not change. The last vacancy filled was in September, 1921.

Work Done

The health of patients has been remarkably good and there has been no epidemics or contagious diseases among them. In the spring diphtheria developed in the family of the baker but did not spread farther. In September the mason's family had diphtheria, evidently contracted when on holidays. Isolation and antitoxin again prevented its spread and at time of writing all are quite recovered.

Destroyed by Fire

We regret to report that the powder magazine built on Magazine Island in 1812 was totally destroyed by fire about three o'clock in the morning of July 2nd, thus removing an old historical landmark.

I have again to thank officers, farmer, artisans, nurses, attendants, cooks, and all other employees for their loyal support.

I have the honour to be, sir,

Your obedient servant,

W. T. Wilson,
Medical Superintendent.

THE ONTARIO HOSPITAL, TORONTO.

November 20th, 1923.

W. W. Dunlop, Esq.,
Inspector of Hospitals,
Parliament Buildings, Toronto, Ont.

Sir:—

I have the pleasure in forwarding to you the statistical report of the workings of this hospital for the past year. These tables will show that our admissions were a few less than last year and the discharges a few greater. When the year's work began we had 809 patients in residence, and during the year we admitted 556 patients, making a total of 1,365 patients under treatment.

During the year the number of our discharges was 53 per cent. of the total number of our admissions. When we deduct from our admissions those patients who are known to be incurable, such as seniles, paretics, imbeciles and idiots, the percentage of discharges to admissions is 66 per cent. During the year we admitted thirty-eight paretics, fifty-seven patients who were diagnosed as seniles, and in addition to this nineteen of our patients were imbeciles or idiots.

During the present year 255 males out of 311 were first admissions, and 180 females out of 245 were first admissions, making a total of 435 out of 556 were first admissions.

Names on Register.—This shows that we transferred 131 patients during the year, and with this our population is within nine of what it was a year ago, indicating an actual increase in our population of 122.

This year has been a very busy one in the way of alteration and repairs. New bathrooms, new toilets and new washrooms have been provided in each of our twelve wards. These rooms have been tiled and the most modern equipment installed in them for the convenience of the patients.

The Department decided about September the first to change the heating system, and since that time a great many men have been busily engaged taking out the old water-pipes that were in the walls and installing a modern and up-to-date system of steam-heating with pumps to take back the condensation. We expect this work to be completed before Christmas time.

Early in the summer it was decided to re-wire the greater part of this hospital because the old wiring had been condemned by the fire department. This work has about been completed, and nothing remains now but the placing of some of the lighting fixtures.

The diet kitchens in the wing wards, both male and female, have been tiled and electric ovens are being installed in place of the old gas heaters. In addition to this, the kitchen has been tiled, new sculleries provided, and some new kettles have been installed. In the kitchen, during the year, we have also installed an ice-making plant. This obviated the necessity of buying ice, and during the summer for the first time this hospital had no bills for purchasing ice.

Wants for the Next Year

In the immediate future it will be necessary to continue this campaign of improvements. This hospital is in the centre of a large city. It has a very large admission list, and has more visitors than all the other mental hospitals

put together. A great many people in the Province will judge the standard of all the Ontario hospitals by what they see at this hospital in Toronto.

I would respectfully ask that during the coming year the following improvements should be carried out:

1. That the space beneath the basement floors should be filled up with cinders, and a cement floor put in. This will help to rid us of rats.

2. The old hot water and steam pipes, that were located in the walls and travelled from one room to another, are not now used and should be taken out and the channels cemented up, making a smooth wall. This will be a big undertaking and will require the time of one or two plasterers for several months.

3. The verandahs at the end of each ward are used as dormitories for sick patients. They should have new floors of either tile or some form of cement that will make them waterproof, and assist in making them fireproof.

4. We have two cottages standing in the grounds that are vacant and accumulating rubbish. I would ask that the floors and walls be repaired, and a new heating system put in. They will then accommodate one hundred patients and this extra room will soon be needed.

5. For some years past the Ontario hospitals have made a definite campaign for the education of nurses. Our staff has improved in both number and personnel. We are proud of our classes of young ladies who are taking the training course in this hospital, but we have no suitable place for them to live. Twenty-eight nurses live in the house that was formerly the Superintendent's house. About fifteen nurses live in the wards with the patients, and another fifteen in an enclosed verandah in one of the cottages. Supervision is impossible under these circumstances, and it is also impossible to give the nurses that comfort and privacy which any refined and educated young woman demands. We have at the gates of our grounds two houses, one built for the gardener and one for the engineer, which might be equipped and fitted up to accommodate nurses. I hope that during the coming year we will be able to prepare one of these houses with a new heating system and modern baths for the accommodation of some of the nurses who are now living in the wards with the patients.

I have to thank the clergy of the city of Toronto for their attention to our patients. Services have been held regularly in the hospital and clergymen of all denominations have frequently visited the patients. These visits have been a great help in restoring the patient's confidence in himself.

Our medical staff, while very small, has been loyal. We have been assisted greatly in our work during the year by the presence of fifth year medical students, who are on duty on the wards every night, every Sunday and holidays.

In closing I must thank you for your continued interest in this hospital. Without your support and co-operation it would be impossible to successfully carry on a hospital such as we have.

I have the honour to remain,

Your obedient servant,

HARVEY CLARE,

Superintendent.

THE ONTARIO HOSPITAL, WHITBY.

November 19th, 1923.

W. W. Dunlop, Esq.,

Inspector of Hospitals, etc.,

Parliament Buildings, Toronto, Ontario.

Sir:—

In accordance with your request, I have the honour to submit the fourth Annual Report of this hospital for the year ending 31st October, 1923.

During the year there were admitted 151 men and 132 women, making a total of 283 patients. Of this number there were fifteen men and nineteen women—a total of thirty-four—admitted by the voluntary process. It is very gratifying to observe the willingness of this number of patients to enter the hospital in this way, which shows their confidence that the medical treatment will be carried out as it should,

There were discharged forty men and forty-eight women, making a total of eighty-eight. This rate of discharge is very satisfactory considering that the larger proportion of our admissions were transfers from other hospitals.

The various lines of treatment such as have been carried on previously have been continued during this year with favourable results. I have observed particularly how with our hydrotherapeutic equipment that the excitement of disturbed conditions of acute patients has been practically controlled by its use. Very acute cases have been received and after a few days treatment by the continuous bath, the patients have been able to rest in a ward along with other quiet cases.

Occupational therapy has been carried out with much success. Convalescent patients at an early period go to this department, on the lower floor of dormitory No. 2. It is a beautifully lighted and ventilated building. All kinds of pleasant occupations that can interest the sick are adopted here, and it is always a happy place to vsit.

From these workrooms the patients are progressed to the various industries which the hospital keeps up, such as the farm, gardens, dairy herd, the kitchens. sewing and mending rooms, the laundry, cannery and the power house. These occupations all suggest a maximum of freedom for the patient, while surprisingly few betray this liberty.

The nurses' graduation exercises were held the same day when the following young ladies received diplomas from Miss E. McP. Dickson, Inspector of Training Schools for the Province: Misses D. Booth, Margaret Bell, Cora Little, Bertha Wright, Gertrude Rees, Nellie Miller, Isabel Bell, Jean Gordon, Annie Chester, Edith Bancroft, E. Stevens, Dorothy Smith and Laura McCullough.

The Training School

The training school is actively carried on under the supervision of Miss R. G. Bryan and the medical staff. It is very gratifying how this work is developing and the high standing that the nurses are attaining. The development of registration of nurses are carried on by Miss Dickson lends itself to our graduates attaining the highest position in their profession after a post-graduate course in a general hospital of six months. I feel that it would be of great benefit

also to the general hospital nurses should they reciprocate and enter a mental hospital for a certain period that they might in this way obtain practical experience in the nursing of such cases. It can only be properly learned from experience. It is quite gratifying to note that a very desirable class of young ladies from the Province of Ontario are entering this training.

Medical Work

The medical work of this hospital is growing apace. From the number of admissions and from the present population our medical staff is inadequate, and I feel that the necessity for addition to this staff is very urgent. The hospital has accommodated students in their last year, for the summer. While their work has been well done and helpful, both to themselves and to the hospital, it is an all-year service that is particularly required now.

The Economic Side

More than 200 men go daily to the gardens and farm, the lawns, etc., to work, and in this way accomplish a great deal of an economic value to the hospital and moreover their health is greatly improved thereby. In the women's department, they make a large amount of clothing and bed linen and work in the dining-rooms, and are pleasantly engaged in the fruit and vegetable season in the cannery, where a large amount of canning is done from our garden products, at a considerable saving to the Province.

Amusements

We are again indebted to the Famous Players Films Company for their continued generosity in supplying gratuitously two films for an evening a week, and the Salvation Army Band of Oshawa, the Whitby Band, the John Ross Robertson Masonic Lodge, the Whitby Amateur Athletic Association, the Ontario Ladies College, and to Mr. Clarke who brought a company from the various Toronto theatres and their orchestras.

Church Services

Church services were arranged for weekly, and we are very much indebted to our local clergymen, the Rev. J. H. Pogson, Rev. T. G. A. Wright, Rev. J. T. Priest, Rev. E. F. Turkington and Rev. F. Howard, also to Rev. W. J. Ryan, who holds Roman Catholic service regularly. The Salvation Army of Oshawa have also held service. A very interesting part of the services has been a choir made up of our patients under the leadership of Miss Jessie Houston.

I cannot close without expressing my appreciation to you, sir, for your valuable counsel and co-operation in the development of our hospital and the welfare of our patients.

I have the honour to remain, sir,

Your obedient servant,

J. M. Forster,

Superintendent.

THE ONTARIO HOSPITAL, ORILLIA

November 1st, 1923.

W. W. Dunlop, Esq.,

Inspector of the Ontario Hospitals,

Parliament Buildings, Toronto, Ont.

Sir:—

I have the honour to present to you the annual report of the Ontario Hospital, Orillia, for the year ending October 31st, 1923.

Of the 169 admitted during the year, 25 were under 8 years of age; 52 from 8 to 12; 64 from 12 to 20; 21 between 20 and 30, and 7 over 30.

The health of our population has been satisfactory. The larger proportion of the 50 deaths were all patients of frail physique. We had no epidemic and only an occasional case of contagious or infectious diseases.

For some time we have been utilizing the Schick test and toxin-antitoxin immunization for diphtheria. This disease has heretofore been a frequent visitor, occasionally with incipient epidemic, which, owing to our large and congested population, became a source of much anxiety. During the last nine years, we have averaged ten cases a year, and in the year and a half immediately preceeding immunization, we had 48 cases of diphtheria. During the year and a half since immunization was instituted one nurse who was in and out of the institution, and was not immunized, developed diphtheria and in two cases patients developed definite symptoms of diphtheria within four days of admission. We have not, however, in this time had a single case in our regular population of nearly 1,200. The result is so immediate and so striking that it would seem to leave no doubt whatever of the value and importance of the measure wherever children are congregated.

Of the 169 admissions during the year, 74 show hereditary tendency. The history of 77 cases discloses no hereditary taint, and in 18 cases it was impossible to obtain the information necessary to reach a conclusion. Figures relating to the mental status of the admissions show that of morons and imbeciles there were 124, while the low grades or idiots number 45.

In the fall of 1923, we were enabled to proceed with the excavation of a new building which has been located on the plateau almost directly south of the present main building. This structure will be 450 feet distant from the present buildings, and will be connected with the tramway of the girls' old cottage by a tunnel. Architecturally the new cottage will be a distinct departure from the style hitherto in vogue here. The wings will be one story only with a centre structure for the executive and living quarters of the staff two stories high.

For many years it has been felt that the present quarters for the physically feeble and paralytic are not at all suitable. This class of patient, while the most difficult to handle in case of panic or fire, is housed in one of the most inaccessible sections of our institution. True, there are two Kirkabender fire escapes connected with their living apartments and dormitories, and these make possible the speedy and safe evacuation of the buildings. But apart from the safety of this portion of the population in case of fire, it has long been recognized that a one-storey building with spacious lawns and ready access to same would afford

this unfortunate class the maximum measure of comfort and enjoyment. Hence, the building now begun. On its north side it will be encircled by a beautiful grove reaching almost to the walls of the building. To the south, Lake Simcoe offers a most attractive prospect with undulating lawns fifteen acres in extent lying between.

There will be, we hope, capacity for 200 patients in this new building. When it is completed our population will soon reach the 1,400 mark, and that should mean the completion of our programme of expansion. Whatever development for the institutional care of the feeble-minded future conditions may necessitate, it will undoubtedly be in the interests of the service and the public to limit the operations at Orillia to the accommodation now being provided.

The transference of the patients now occupying the top floors of our main building to the new cottage will mean a very substantial increase in our accommodation for training school cases. We have increased our classes during the past year and have now over 300 attending the schools of letters and industrial departments. It is gratifying to be able to report that we have been enabled to expand materially the operations of our training school, and also make the output of a more utilitarian character. The weaving department has had a very busy season, and we have turned out some very satisfactory samples of rugs, mats, towels, etc.

After all, the big question at this hospital—in this respect it probably differs from any of the hospitals for the insane—is unquestionably the useful and attractive employment of our patients. Give our children plenty of work that is interesting and the rest is easy. Nor is it necessary to provide white collar employment. For a few weeks during last autumn we had about 50 of our male patients engaged on the excavation for new buildings. These boys and men worked hard every day; and it was heavy work as they had to cut most of the time through hardpan; yet there were no slackers among them. They were interested in the progress of the work, which I am pleased to report was very creditable, and their conduct was in every respect exceptional. Some of these lads if left in idleness would have been full of mischief and sources of trouble.

And that brings up the most serious problem that is confronting this and probably other institutions. The labour force available here is increasing rapidly. The opportunities for productive employment are about the same as they were five years ago. We must recognize this fact: Our duty to these unfortunates is not fully discharged if we merely feed and clothe and house them. We owe it to them to train them, intellectually, if they are young and capable, industrially, if the only road to their betterment lies through manual or occupational exercises. It should be possible to develop here a line of industries that would not be beyond the capacity of our children, and whose products would meet the requirements of other institutions in the Province. It is impossible to employ them at work of any value to them without producing things of value and the finding of a market for these things of value is the great difficulty that apparently confronts us.

I beg to offer a word of appreciation for the loyalty and good service of members of the staff and of the cordial assistance of you, Sir, and the other officials in the Department at Toronto.

I have the honour to be, sir,

Your obedient servant,

J. P. Downey,

Superintendent.

THE ONTARIO HOSPITAL, WOODSTOCK

W. W. Dunlop, Esq.,

Inspector of the Ontario Hospitals,

Parliament Buildings, Canada.

Sir:—

I have the honour to submit to you the Eighteenth Annual Report for the Ontario Hospital, Woodstock, for the year ending October 31st, 1923.

We had remaining in residence November 1st, 1922, 202 patients. We admitted during the year, 13 males and 17 females, total 30 patients. Total number under treatment during the year, 232, being 108 males and 124 females. Total number discharged during the year, 13, being 8 males and 5 females. Discharged improved, 6; discharged unimproved, 7. Total number who died during the year, 13, being 5 males and 8 females. We had remaining in residence October 31st, 1923, 206 patients.

Farm and Garden

Both farm and garden yielded splendid crops. In no line were we short, and the quality was excellent of both grain and vegetables.

Services and Entertainments

The usual Sunday services were carried on each Sabbath. Also many concerts and entertainments during the week, for which we are grateful to the Ministerial Association and the members of the various clubs and organizations of the City of Woodstock, who so generously gave their time and talent towards these services.

On the 4th of September we put on our first field day sports, which proved to be a great success. All entered into it with the proper spirit and did everything they possibly could to make it successful. We had a large gathering and everybody was delighted with the events of the day.

Conclusion

The officers and staff have rendered efficient service, doing their work with a willingness and satisfaction that has been very gratifying and also much appreciated.

To you, Sir, we are indebted for the interest you have taken in the affairs of the hospital, and for your able assistance in all matters pertaining to the advancement of the institution.

I have the honour to be, sir,

Your obedient servant,

J. J. Williams,

Superintendent.

ANNUAL STATISTICAL REPORT OF THE OPERATIONS OF THE HOMEWOOD SANITARIUM, GUELPH

Voluntary Branch

TABLE No. 20

Showing movements of patients in the Hospital for the official year ending, October 31st, 1923.

	Male	Female	Total	Male	Female	Total
Capacity of Hospital	75	75	150			
In Residence October 31st, 1922				43	40	83
Admitted during year 1923:						
By Warrant	0	0	0			
By Medical Certificate, voluntary applications	140	99	239	140	99	239
Total number under treatment during year	.....	.....	.....	183	139	322
Discharges during year:						
As recovered	34	9	43			
As improved	90	53	143			
As unimproved	16	21	37			
As not insane	0	0	0			
Total number discharged during year	140	83	223			
Died	7	7	14			
Deported	0	0	0			
Eloped	2	1	3			
Transferred	4	6	10	153	97	250
Remaining in Hospital, October 31st, 1923	.....	.....	.....	30	42	72
Total number admitted since opening of Hospital	.....	.....	.....	2,496	1,213	3,709
Total number discharged since opening of Hospital	2,244	1,061	3,305			
Total number died since opening of Hospital	89	49	138			
Total number deported since opening of Hospital	0	0	0			
Total number eloped since opening of Hospital	68	5	73			
Total number transferred since opening of Hospital	65	56	121	2,466	1,171	3,637
Total remaining in Hospital October 31st, 1923	.....	.....	.....	30	42	72
Daily average population	.....	.....	.....	.....	.....	.....
Collective day's stay of all patients in residence during year	.....	.....	.....	.....	.....	.....
Number of applications on file	.....	.....	.....	.....	.....	.....

HOMEWOOD SANITARIUM, GUELPH

Insane Branch

TABLE No. 21

Showing movements of patients in the Hospital for the official year ending October 31st, 1923

	Male	Female	Total	Male	Female	Total
Capacity of Hospital	75	75	150			
In Residence October 31st, 1922				15	43	58
Admitted during 1923:						
By Warrant	.....	.....	.....			
By Medical Certificate	23	35	58	23	35	58
Total number under treatment during year	.....	.....	.....	38	78	116
Discharges during year:						
As recovered	3	4	7			
As improved	13	13	26			
As unimproved	3	7	10			
As not insane	0	0	0			
Total number discharged during year	19	24	43			
Died	4	10	14			
Deported	0	0	0			
Eloped	0	0	0			
Transferred	2	5	7	25	39	64
Remaining in Hospital, October 31st, 1923	.....	.....	.....	13	39	52
Total number admitted since opening Hospital	.....	.....	.....	865	951	1,816
Total number discharged since opening of Hospital	608	685	1,293			
Total number died since opening of Hospital	127	105	232			
Total number deported since opening of Hospital	0	0	0			
Total number eloped since opening of Hospital	13	5	18			
Total number transferred since opening of Hospital	104	117	221	852	912	1,764
Total remaining in Hospital, October 31st, 1923	.....	.....	.....	13	39	52
Daily average population	.....	.....	.....			
Collective day's stay of all patients in residence during year	.....	.....	.....			
Number of applications on file	.....	.....	.....			

REPORT

OF THE

Ontario Board of Parole

For the Year ending October 31st

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1924

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The
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TORONTO
CANADA

To His Honour Henry Cockshutt,
The Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I herewith beg to present for your consideration the Annual Report of the Ontario Board of Parole, for the official year ending October 31st, 1923.

Respectfully submitted,

Lincoln Goldie,
Provincial Secretary and Registrar-General.

To the Honourable Lincoln Goldie, M.P.P.,
Provincial Secretary and Registrar, Ontario.

Sir,—

I have the honour to present herewith the Annual Report of the Ontario Board of Parole for the year ending October 31st, 1923.

I have the honour to be, Sir,

Your obedient servant,

Alfred E. Lavell,
Secretary and Chief Officer.

Report of Ontario Board of Parole for Year Ending October 31st, 1923

The membership of the Board remains as it was last year except for the recent addition of Mr. T. Ashmore Kidd, of Kingston. It is now up to its full legal strength of nine members.*

The statistical statement for the year is as follows:

	Men	Women
Cases interviewed and investigated	823	164
Persons paroled	215	55
Disappeared	20	6
Other failures	21	13
Recommended for ticket-of-leave or extra-mural permit	86	18

These statistics, though accurate, may be misleading and certainly give little conception of the work of the year. They show a clear success of 80%. By success we mean that regulations have been kept by the persons on parole. It is not at all implied that twisted hemlock has been made into first-class walnut. It is not claimed that any archangels or apostles have been produced nor would anyone be justified in guaranteeing permanent reformation, and yet on the other hand the illustrative examples at the end of this report will indicate how effective and valuable have been the results of parole in a very large number of cases. It is also significant that of the recidivists in our Provincial institutions who have served previous terms, less than 10% have ever been paroled by us. This would seem to indicate that there is permanently effective success in a very large number of those paroled and that our parole system, even with its failures, has a much better permanent effect in the protection of society than the old non-parole system.

Furthermore the statistical record of failures gives an unavoidably inadequate impression. By failures it is meant either that the person on parole has disappeared or that he has failed to keep the regulations. A few of the failures are due to the re-committing of crime. Others having deliberately broken regulations have been returned by the Board inside the institution from which they were paroled. A careful examination of the files of those who have disappeared or who have recommitted crime fails to show any indication of the coming disappearance or of criminal probability nor could these have possibly

*The full membership of the Ontario Board of Parole is as follows: Mr. Hamilton Cassels, K.C., LL.D., Vice-President of the Toronto General Trusts Corporation, Toronto, Chairman; Mr. T. H. Preston, Editor of the Brantford Expositor and President of the Canadian Daily Newspapers Association, Vice-Chairman; Colonel Noel Marshall, for many years head of the Canadian Red Cross, &c., &c., Toronto; Mr. Daniel Miller, Retired Bank Manager, Toronto; W. W. Dunlop, Inspector of Prisons and Public Charities, Toronto; Judge Emerson Coatsworth, Senior Judge of the County of York, Toronto; W. A. Evans, Contractors' Supplies, &c., Sudbury; T. Ashmore Kidd, Broker, Kingston; Mrs. G. A. Brodie, Toronto, who sits with the Board when women's cases are being considered. Dr. Alfred E. Lavell, 46 Richmond Street West, Toronto, is the Secretary and Chief Officer.

been foreseen nor guarded against by the officers of the Board. The real reason for practically all the failures lies in the material of which the paroled persons were made. In judging parole operations this point is sometimes overlooked. If there is a good supply of first-class mahogany a cabinet-maker can be expected to make a first-class suite of furniture. But the material coming to the Board contains all sorts of wood—a little mahogany, some good pine, some very knotty pieces, some very low-grade, twisted or stunted or broken culls, not a little drift-wood, and some of this pretty well worm-eaten. A first-class job, judging by absolute standards, is in many cases utterly impossible, but the material has to be dealt with. The Board acts according to its best judgment and as has been indicated above, it is felt that good work has been done.

In deciding paroles no consideration is given to possible injury to a favourable statistical statement and not a few who failed to keep the conditions did much better than might have been expected. They were given an opportunity in the interests of the public and of themselves and failed, but in not a few instances fine effort was made toward success, which, though it was not adequate, justified the Board in having given the opportunity of parole to the prisoner. The public hardly realizes the heavy odds against many of these offenders when they begin the battle for re-establishment. The surprising and gratifying thing is that so large a percentage make a really victorious fight.

The fact that half the failures for this year have been caused through the utter disappearance of certain paroled men, causes the Board much concern. A number of these have been apprehended by its officers and returned to the institutions, some of them being prosecuted under Section 185 of the Criminal Code, but the difficulty of getting track of these parole violators might, it is thought, be lessened if a photograph and finger-prints of every person paroled were on file in the office of the Board. Possibly, too, the knowledge that these precautions had been taken might deter some from attempting to escape from supervision. This matter is being taken up to see if the arrangements can be made.

As will be seen from the statistical table, the number paroled was less than one-third of those interviewed. This will show the extreme caution that has been exercised in coming to a favourable decision. Not only has this care and discrimination been devoted to the cases before action but also after parole has been granted, and during the year there has been more complete supervision than in any previous year. A somewhat stricter discipline and higher standard combined with a lower average type of persons has had something to do with the number which this year have been registered as failures.

It will be noted that the percentage of failure among the women is somewhat greater than among the men. This is universally the case. The majority of women coming to our institutions are subnormal mentally and immoral. Paroles have been granted to women in many cases with a good deal of hesitation. However, there seemed to be some possibility of success and it was thought wise to give them a chance to get upon their feet under supervision rather than to hold them in an institution until the end of their sentence and have them step out free women, friendless and with no supervision or control exercised.

The home surroundings of many convicted women are not helpful to success on parole and it is a very difficult task to supervise them properly. In a number of cases it has been found necessary to place the woman in some other position than her own home. Sometimes it has been found possible to improve the home conditions, through the power which we have over the

paroled person. Taking all the circumstances into account, what has been said above concerning the men is even more true regarding the women. Many of the failures recorded in the statistics have really been successes in many ways because of the fine struggle that has been made by the women, and the percentage of real success under very difficult conditions is very gratifying. One of the recorded failures is that of a woman who had married very unhappily and who, after parole, found it impossible to get along with her husband and requested to come back to the Reformatory because she feared that she would get into trouble if she remained outside under the conditions of her home. We took her back accordingly but her attitude is worth recording. At the end of this report a brief account is given of several other illustrative women's cases.

As you are aware all inmates—both men and women—are personally interviewed before a decision is reached. This necessitates frequent visits to the Provincial institutions at Guelph, Burwash, Mimico, the Andrew Mercer Reformatory, Toronto, and less frequently, the Industrial Farm at Fort William. In addition to these Provincial Reformatories the Toronto Municipal Farms at Langstaff and Concord are also regularly visited, and occasionally county jails.

Of the non-Provincial institutions it is not necessary to speak, but in visiting the Provincial institutions the Board has noted the continued good discipline and excellence of attitude on the part of the superintendents and their assistants towards those committed to their charge. It believes that everything in their power is being done by the officials in the interest of the public and of the inmates. But it strongly recommends that young and first offenders, especially those whose record and crime do not show a vicious nature, should, when sent to an institution, be kept rigidly apart from association with older criminals. It is unfortunate that there are in our reformatories and industrial farms persons of long criminal records (including penitentiary sentences for felonies). It would seem desirable, as soon as possible, to make some other provision for this type of criminal and in the meantime that they should not be associating with offenders who are having their first experience of incarceration.

At one of the Board's meetings at Burwash, representatives of a number of Toronto newspapers were in attendance and observed operations for the day. The full reports which they published in their respective papers were well written and showed an intelligent appreciation of the problems of the Board and approval of its methods. This and the almost unanimous public approval given to the work is gratifying, but here and there in the press unwarranted and regrettable statements have appeared from time to time regarding the Ontario parole system, which reveal lamentable ignorance on the part of the writers or their informants, and which have given a very erroneous impression to the readers of these items. In some cases the Secretary of the Board has written to the press calling their attention to the mis-statements, but in most cases this has not been considered necessary as it has been felt that the intelligent public would detect their fallacy. It is pleasant to note that the great majority of the public officials, Dominion, Provincial and municipal, have intelligently grasped the Board's procedure and aims and are co-operating most heartily and intelligently with its officers in the re-establishment of many offenders.

At its meeting held in Montreal recently the Canadian Bar Association discussed our Ontario parole system at length and on resolution recommended it to the other Provinces. This action of the Canadian Bar Association is appreciated. The Board realizes that we have by no means a perfect system in Ontario and that improvements are bound to come as the years pass, but

it believes that our principles and policy are fundamentally right and each year's experience confirms this opinion.

In view of the action of the Canadian Bar Association the Chief Officer of the Board recently visited the Western Provinces, and interviewed the Provincial Secretaries and Attorneys-General of three of them, explaining fully our systems. This action was taken chiefly because of the great desirability of having Boards of Parole, similar to ours, established in the other Provinces of Canada. At present, if paroled men are allowed to go west on harvest excursions or to other employment in other Provinces, it is exceedingly difficult to maintain good supervision, and if the paroled person fails it is a very great expense to get him back to one of our institutions. If all Provinces had Boards of Parole and parole officers a system of reciprocity might easily be devised under which a paroled person from any Province would be under the supervision and control of the parole officials of the particular Province in which he was living and working. The Attorneys-General interviewed promised serious consideration of the matter but as our Ontario parole differs in certain important respects from the American and other parole systems, with which they were unfavourably familiar, it may take some little time for public opinion in the other Provinces to approve of the proposal. The experience of Ontario since the founding of the Board, it is hoped, will show all the other Provinces of Canada the distinct advantage to each Province of having similar arrangements.

To illustrate the different kinds of information which the Board has before it when it is interviewing an inmate with a view to parole, the case of (Q) might be noted.

He was convicted of auto theft and given twelve months and an indeterminate period thereafter of twelve months. The comment of the magistrate was "I gave him an extra year so that the Board might have some control of him if on parole." A communication from the Chief Constable, and one from the Criminal Investigation Department, Ottawa, stated that on a previous date, three years before, this man had been convicted on four charges of shopbreaking and theft and had been remanded for sentence. From other quarters we had the following information: He was born in Toronto 19 years ago; his parents gave him a good home. One brother was killed overseas. He left school at fifteen years of age, having reached the second book. After leaving school he worked for five different concerns. Is of quiet, retiring disposition, has a poor memory. Is not a vicious boy; is truthful but easily led. Has had fainting spells with loss of memory which may show a tendency to epilepsy. He has been eight times before the Juvenile Court, six of these on a charge of theft, one disorderly and one malicious injury to property. On the first conviction he was allowed to go on making restitution. After the three following he was placed on probation, one of these to a church, one to a citizen, one to the court. The fifth time he was remanded for sentence. The sixth he was fined $10 and made restitution; the seventh he was placed on probation to a citizen; the eighth he was placed under a bond of $100 and sentenced was suspended. The decision of the Board in this case was that it was neither advisable in his interest nor in that of the public that he should be granted a parole because he was so irresponsible as to be practically impossible to control; furthermore, it was felt that the discipline of the institution might so train him that when at the age of 21 he goes out a free man he might possibly have learned his lesson sufficiently to keep out of trouble, though he will never be a very capable citizen.

The following cases, chosen at random from fairly recent successful paroles, may be of interest:

(a) Convicted of theft and given three to twelve months. Had served overseas. No parents; thirty-two years old. Has a good wife and two children, and excellent education and reputation apart from this crime. Got gambling on horse races and the crime resulted. He was paroled at the end of his three months and has now a good position in an educational institution and is doing well.

(b) A Canadian convicted of theft and given three to twenty-four months. Thirty-one years of age. Has a wife and two children. Had a good reputation except for one small theft, but little schooling. He was paroled after three months; was found rather difficult to manage because of carelessness, though not deliberately bad. He is now on a farm doing well.

(c) Nineteen years of age. Received twelve to eighteen months for theft. Had a good education. His father has a good position. The mother is divorced and remarried. Both parents deeply interested in him. He had two previous convictions. For the first he served six months and on the second he was remanded; both for theft. After serving his twelve months he was paroled and has since done well, though it would have been better had his indeterminate sentence been much longer.

(d) A young fellow with a good mother and a good record. On a previous conviction for theft he served eight days. When convicted of housebreaking the mother asked for a long indeterminate sentence, but he was given three months and an indeterminate three months. We paroled him on condition that he would consider himself as under us for two years, though not legally bound. At the present date he is still doing well and earning $4 a day.

(e) A Canadian twenty-two years of age, with good parents. He enlisted at sixteen years of age. He is married and has one child. When convicted he had been separated from his wife. The magistrate said, "He is of low order and with no sense of truth or honesty." He was convicted of two or three crimes—purse snatching, issuing cheques, etc. He had issued cheques before and his father had settled. He was paroled after a few months, became reconciled to his wife and has since done well, earning $5 a day.

(f) An Englishman nineteen years of age, who had been in Canada fifteen years. Was convicted of theft and given three to twenty-four months. He had been for some time into various bits of mischief, finding it difficult to keep his hands off people's property. The magistrate said he sent him down to straighten him up. He has good parents who are deeply concerned. A brother was killed overseas. After six months he was paroled. Has since been living at home, earning $3 a day and doing well.

(g) Twenty-two years of age. From a good home and had good schooling. He got out of hand when his father was overseas and left home. Got among bad companions, stole $25 and was given three and twenty-one months. After five months he was paroled. Has since then done well. Is living at home and is earning $4 a day.

(h) A Canadian twenty-one years of age. Good parents, good previous record. A mechanic with good position. Spent everything and deliberately took money from a gullible comrade. Was paroled after four months. Is earning good wages and is doing well.

(j) Twenty-one years of age. No previous record. Good parents, good wife. Addicted to liquor. Trusted a shrewder and older criminal who escaped

conviction. Convicted of theft and given six months and a long indeterminate. Paroled after seven months. Has since done well and is making $3 a day.

(k) A Canadian, born in 1868. A wife and eleven children. Five under sixteen years of age. Was not well, became discouraged, committed forgery and was given three to twenty-four months. After three months was paroled and has since done well.

(l) A young fellow with no dependants. Sister deeply interested. Four previous convictions. Was given twelve months and a long indeterminate for theft. Was paroled after his twelve months had elapsed; went to work for an employer who had employed him for three years before and has since that time done well, earning between $3 and $4 a day.

(m) A very young girl from respectable stock. Mother died in the insane hospital. The girl was getting more and more morbid in the Reformatory. Was paroled to her married sister and because of mental condition was for a time hard to handle. She is now doing well.

(n) A notorious Toronto court case. A woman who was been up in Court for drunkenness very many times. Arrested for theft and given two years maximum. She seems to have now entirely reformed.

(p) A very capable woman of middle age, fearfully untruthful, several previous convictions, not immoral. Her trouble was signing cheques. When given a chance on parole, she went straight for three months, but then relapsed and signed two more cheques. She had to be sent back to the institution. However, the experience she had with our woman parole officer led her to come to that officer upon her discharge. She has since kept in touch with her and is doing well. She is voluntarily making restitution for the money she stole. She is registered in the statistics as a failure because she broke her parole, but is really a very probable success.

Every year our parole system saves the Province directly tens of thousands of dollars net. Many more are added by wages to the economic assets of the Province. But the human results, of which the above are but a sample, are by all odds greater than the financial.

FIFTY-FOURTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

Hospitals and Charitable Institutions

OF THE

PROVINCE OF ONTARIO

BEING FOR THE YEAR ENDING 30th SEPTEMBER

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1924

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Parliament Buildings,
Toronto, 12th December, 1923.

To His Honour Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour :

I beg to submit herewith the Fifty-fourth Annual Report upon the Hospitals and Charitable Institutions of Ontario, being for the official year ending September 30th, 1923.

I have the honour to be,

Your Honour's obedient servant,

L. Goldie,
Provincial Secretary.

Office of the
Inspector of Prisons and Public Charities, Ontario.
Parliament Buildings, Toronto, 5th December, 1923.

Sir,—I have the honour to transmit herewith, to be presented to His Honour the Lieutenant-Governor, the Fifty-fourth Annual Report upon the Hospitals and Charitable Institutions, etc., for the official year ending September 30th, 1923.

I have the honour to be, Sir,

Your obedient servant,

James Govan,
Inspector.

The Honourable L. Goldie, M.P.P.,
Secretary of the Province of Ontario,
Toronto.

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Hospitals and Charitable Institutions

In presenting the fifty-fourth annual report on the Hospitals and Charitable Institutions for the year ending September 30th, 1923, I beg to state that there are at present in Ontario:—

118 Public Hospitals, including 10 Sanatoria for Consumptives.
53 Private Hospitals.
41 Refuges.
30 Orphanages.
3 Convalescent Homes.
31 County Houses of Refuge.

These have, as far as possible, received official visits of inspection during the year, and those entitled to Government aid in accordance with the Statute have shared in the grants voted by the Legislature for Hospitals and Charities.

The Hospitals

The record of the year indicates the continued success and progress of the Hospitals of Ontario:

Number of patients in the hospitals, October 1st, 1922	6,907
Number of patients admitted during the year	119,689
Number of births in the hospitals during the year	13,123
Total number under treatment during the year	139,719

The above figures do not include those who received medicine and treatment as outdoor patients.

Number of deaths during the year	7,217
Percentage of deaths to number under treatment	5.16
Total number of days' stay in the hospitals	2,526,132
Provincial grant to hospitals for the past year	$937,498.05
Amount received from all sources during the year	8,065,471.93
Subscriptions, donations, etc., during the year	595,015.83
Total expenditure for hospitals (including capital account, $1,419,204.45) during the year	9,511,007.95
Average cost for each patient per day	3.19
Percentage of Provincial grant to total maintenance expenditure	11.6

Provincial Aid to Hospitals

1. A Provincial grant is made for all patients in a hospital during the first ten years of its existence at the rate of fifty cents per day, irrespective of what sum is contributed by the patients themselves.

2. After a hospital has been in existence for ten years the grant is paid only for patients for whose maintenance $10.50 per week or less is contributed.

3. In all cases the limit is 120 days, and if the patients remain in the hospital longer than that period the refuge rate of ten cents per day is allowed.

4. No allowance is made for infants born in hospital.

Aid to Sanatoria for Consumptives

1. A grant of $4,000 on the erection and satisfactory equipment of the necessary buildings.

2. A grant of seventy-five cents per day for the maintenance of each indigent patient.

These grants to be in consideration of proper accommodation being provided, and only to assist in the maintenance of indigent patients coming from the Province of Ontario. There were 3,146 patients cared for in the ten different Sanatoria for Consumptives during the past year.

The Year's Work in the Hospitals

The number of patients cared for in the Public Hospitals of Ontario during the past year was 139,719.

The total expenditure for maintenance and equipment during the year was $8,091,803.00.

Registration of Nurses

It is only within recent years that the value of the student nurse to the hospital and the hospital's obligation to the student nurse has been appreciated. With the rapid development of hospital service the training schools have bravely carried on with little outside assistance; we are, therefore, glad to record the passing of an Act providing for the Registration of Nurses and Regulations providing for the Standardization of Nurse Training. An Inspector of Training Schools was appointed and within the past year a survey of the Training Schools of the Province has been made, a report of which will be available in the near future.

Need for Submission of Development Schemes to Department

As my appointment as Inspector of Hospitals and Charitable Institutions only dates from the 1st of August, 1923, there has not been sufficient opportunity to become familiar enough with the developments at all the hospitals and institutions to make any comment on the progress during the past year.

It is desirable, however, to take advantage of the issue of this report to call attention to the very general evasion of the Regulations which require that proposals for the development of all Public and Private Hospitals and also all Charitable Institutions receiving Government aid must be submitted to this Department before the Board of Trustees or owners commit themselves to such schemes.

James Govan,
Inspector.

DR. ALEX. MACKAY
Deceased 18th February, 1923

In Memoriam

Since the publication of the last Annual Report the death of Dr. Alex. MacKay, Inspector of Hospitals and Charitable Institutions, falls to be recorded.

He died very suddenly on the 18th February, 1923, in Wellesley Hospital, Toronto, after an illness of five days.

He was born at Banda in 1868 and was educated at High School and Trinity University. At 18 he joined the 36th Peel Rangers, which he left in 1916 to go overseas with the C.A.M.C., but later rejoined, being gazetted Lieutenant-Colonel in August, 1922.

Before going overseas he was Chief Medical Inspector of the Toronto Public Schools, and when he returned, that office having been placed under the jurisdiction of the Medical Health Officer, Dr. MacKay was appointed Inspector of Hospitals and Charitable Institutions.

Overseas he was M.O. in Orpington Hospital, later going to France, where he was at several of the base hospitals.

His kindly, cheerful disposition made him friends wherever he happened to be, and in furthering the development of the institutions under his inspection and the welfare of their patients and inmates he found an outlet for his broad, human sympathies.

His loss will be particularly felt in the smaller communities where he did much to help in the establishment of hospitals and charitable institutions and to overcome the difficulties which so many of these institutions meet with in their management.

His nature was essentially helpful, and so much of his work will survive, known only to those who were his immediate associates and those who brought their difficulties to him.

TABLE I.—Showing the general movements in each hospital separately

Hospitals.	Location.	Capacity in beds	Number remaining under treatment on 1st Oct., 1922.	Number admitted during the year ending 30th Sept., 1923.	Number of births in hospital during the year.	Total number under treatment during the year ending 30th Sept., 1923.	Number discharged during the year.	Number who died during the year.	Number remaining under treatment on 30thSept.1923
Rosamond Memorial Hospital	Almonte	20	12	223	44	279	246	21	12
Royal Victoria Hospital	Barrie	75	34	760	98	892	821	35	36
General Hospital	Belleville	84	42	1,455	157	1,654	1,520	89	45
General Hospital	Bowmanville	21	18	325	51	394	361	24	9
General Hospital	Brantford	150	102	1,967	286	2,355	2,113	144	98
Brant Sanatorium	"	40	33	40	.....	73	33	3	37
General Hospital	Brockville	80	43	895	81	1,019	916	59	44
St. Vincent de Paul Hospital	"	100	50	1,050	62	1,162	1,045	55	62
General Hospital	Chatham	90	38	938	86	1,062	961	66	35
St. Joseph's Hospital	"	60	33	722	94	849	751	64	34
Lady Minto Hospital	Chapleau	20	5	288	31	324	306	13	5
Public Hospital	Clinton	7	4	135	20	159	148	6	5
Cobalt Mines Hospital	Cobalt	27	4	590	23	617	573	22	22
Cottage Hospital	Cobourg	34	22	417	52	491	446	20	25
Lady Minto Hospital	Cochrane	37	20	399	34	453	404	21	28
General and Marine Hospital	Collingwood	64	34	567	56	657	582	40	35
General Hospital	Cornwall	62	27	565	49	641	580	40	21
Hotel Dieu Hospital	"	125	49	1,331	107	1,487	1,376	72	39
Haldimand County Memorial Hospital	Dunnville	18	4	223	18	245	217	22	6
Red Cross Memorial Hospital	Durham	11	.....	96	15	111	98	7	6
Royal Alexandra Hospital	Fergus	60	19	242	24	285	250	13	22
McKellar General Hospital	Fort William	165	107	2,832	245	3,184	2,975	110	99
General Hospital	Galt	80	49	1,129	185	1,363	1,237	77	49
General and Marine Hospital	Goderich	15	11	189	50	250	223	15	12
Muskoka Cottage Sanatorium	Gravenhurst	65	39	76	.....	115	82	6	27
Muskoka Hospital for Consumptives	"	300	227	454	.....	681	403	32	246
General Hospital	Guelph	100	67	1,308	151	1,526	1,386	87	53
St. Joseph's Hospital	"	68	41	994	95	1,130	1,032	55	43
City Hospital	Hamilton	496	362	7,241	809	8,412	7,610	470	332
St. Joseph's Hospital	"	150	92	2,891	256	3,239	2,996	131	112
Mountain Sanatorium	"	183	190	182	.....	372	127	56	189
Hanover General Hospital	Hanover	14	.....	18	4	22	12	2	8
St. Paul's Hospital	Hearst	12	.....	31	9	40	37	1	2
General Hospital	Ingersoll	30	7	181	50	238	217	9	12
General Hospital	Kenora	31	23	372	51	446	419	8	19
St. Joseph's Hospital	"	40	11	308	7	326	290	22	14
General Hospital	Kincardine	21	9	213	58	280	266	8	6
General Hospital	Kingston	200	136	3,429	147	3,712	3,438	125	149
Hotel Dieu Hospital	"	200	93	2,096	126	2,315	2,143	69	103
Kitchener and Waterloo Hospital	Kitchener	69	47	1,223	116	1,386	1,276	74	36
Freeport Sanatorium	"	63	40	84	.....	124	63	12	49
Ross Memorial Hospital	Lindsay	35	25	729	57	811	726	53	32
Listowel Memorial Hospital	Listowel	19	5	184	18	207	192	4	11
General Hospital	London	300	184	3,778	243	4,205	3,800	234	171
St. Joseph's Hospital	"	150	82	1,871	216	2,169	1,962	80	127
Bethesda Hospital	"	50	21	335	286	642	596	27	19
Queen Alexandra Sanatorium	"	310	250	369	.....	619	358	21	240
Victoria Home for Incurables	"	75	71	24	.....	95	7	22	66
Rosedale War Memorial Hospital	Matheson	9	4	107	24	135	129	4	2
General Hospital	Mattawa	35	18	400	.....	418	388	11	19
General Hospital	Midland	44	18	510	50	578	536	25	17
Mount Forest General Hospital	Mount Forest	15	1	116	11	128	113	9	6
Lady Minto Hospital	New Liskeard	25	10	393	26	429	388	24	17
York County Hospital	Newmarket	15	6	242	9	257	236	17	4
General Hospital	Niagara Falls	60	46	966	114	1,126	1,022	61	43
Cottage Hospital	Niagara-on-the Lake	10	4	92	19	115	105	7	3
Queen Victoria Hospital	North Bay	46	20	643	71	734	682	31	21
General Hospital	Orangeville	25	15	184	38	237	212	15	10
General Hospital	Orillia	75	29	853	138	1,020	940	35	45
General Hospital	Oshawa	80	50	1,189	155	1,394	1,301	48	45
General Protestant Hospital	Ottawa	160	115	2,977	11	3,103	2,836	143	124
Roman Catholic Hospital	"	350	150	3,812	10	3,972	3,649	180	143
Maternity Hospital	"	27	29	395	363	787	752	12	23
Misericordia Maternity Hospital	"	230	167	375	250	792	518	125	149
St. Luke's General Hospital	"	150	111	2,327	.....	2,438	2,205	123	110
Protestant Infants' Hospital	"	42	39	80	.....	119	73	17	29
Salvation Army Maternity Hospital	"	46	46	727	640	1,413	1,312	34	67
Royal Sanatorium	"	68	57	124	.....	181	84	31	66
Perley Home for Incurables	"	64	49	26	.....	75	6	15	54
General and Marine Hospital	Owen Sound	62	29	835	117	981	926	28	27
Willett Hospital	Paris	15	9	256	54	319	297	13	9
John R. Stone Memorial Hospital	Parry Sound	35	16	255	15	286	264	11	11
St. Joseph's Hospital	"	30	10	274	49	333	312	12	9

TABLE I.—Showing the general movements in each hospital separately—*Concluded*

Hospitals.	Location.	Capacity in beds.	Number remaining under treatment on 1st Oct., 1922.	Number admitted during the year ending 30th Sept., 1923.	Number of births in hospital during the year.	Total number under treatment during the year ending 30th Sept., 1923.	Number discharged during the year.	Number who died during the year.	Number remaining under treatment on 30th Sept. 1923.
Cottage Hospital	Pembroke	32	16	461	30	507	466	21	20
General Hospital	"	150	70	1,338	67	1,475	1,368	59	48
General Hospital	Penetanguishene	15	1	233	38	272	261	10	1
Great War Memorial Hospital	Perth	18	.....	185	18	203	186	8	9
Nicholls Hospital	Peterborough	90	54	1,167	200	1,421	1,285	83	53
St. Joseph's Hospital	"	85	43	762	113	918	837	39	42
C. E. Englehart Hospital	Petrolia	40	12	240	46	298	259	24	15
Prince Edward County Hospital	Picton	30	3	209	23	235	218	12	5
General Hospital	Port Arthur	50	39	761	79	879	825	23	31
St. Joseph's Hospital	"	150	47	1,193	130	1,370	1,285	42	43
General Hospital	Port Hope	25	14	260	48	322	289	20	13
Victoria General Hospital	Renfrew	30	26	449	55	530	495	26	9
General and Marine Hospital	St. Catharines	80	57	1,054	296	1,407	1,272	79	56
Consumptive Sanatorium	"	24	8	31	.....	39	17	8	14
Amasa Wood Hospital	St. Thomas	50	32	820	152	1,004	898	70	36
General Hospital	Sarnia	56	41	816	144	1,001	893	73	35
Plummer Memorial Hospital	Sault Ste. Marie	32	11	495	38	544	510	18	16
General Hospital	"	135	35	840	77	952	879	35	38
General Hospital	Sioux Lookout	16	4	274	11	289	270	8	11
Public Hospital	Smith's Falls	50	26	528	84	638	569	33	36
St. Francis' Hospital	"	70	24	432	44	500	446	29	25
General Hospital	Stratford	100	35	1,002	145	1,182	1,077	67	38
General Hospital	Strathroy	30	21	265	38	324	286	16	22
St. Joseph's Hospital	Sudbury	150	80	1,935	63	2,078	1,933	75	70
General Hospital	Toronto	750	502	10,918	1,292	12,712	11,428	716	568
Grace Hospital	"	128	112	2,367	515	2,994	2,765	114	115
Hospital for Sick Children	"	250	260	6,086	.....	6,346	5,592	528	226
Orthopedic Hospital	"	40	22	521	.....	543	528	4	11
St. John's Hospital	"	68	38	1,143	1	1,182	1,126	19	37
St. Joseph's Hospital	"	175	53	1,317	148	1,518	1,385	73	60
St. Michael's Hospital	"	305	255	4,346	454	5,055	4,553	274	228
Salvation Army Women's Hospital	"	37	34	375	349	758	694	39	25
Wellesley Hospital	"	75	81	1,912	253	2,246	2,096	80	70
Western Hospital	"	253	162	3,825	496	4,483	4,056	241	186
Women's College Hospital	"	50	51	883	322	1,256	1,167	45	44
The Preventorium	"	100	72	144	.....	216	146	.....	70
Home for Incurable Children	"	39	32	8	.....	40	4	1	35
Toronto Hospital for Incurables	"	240	232	67	.....	299	5	67	227
General Hospital	Walkerton	26	9	172	17	198	177	10	11
General Hospital	Welland	50	15	713	48	776	693	50	33
Toronto Hospital for Consumptives King Edward Sanatorium Queen Mary Hospital for Children	Weston	390	317	409	.....	726	278	141	307
Grace Hospital	Windsor	102	23	1,481	203	1,707	1,565	86	56
Hotel Dieu Hospital	"	125	83	2,413	252	2,748	2,538	123	87
General Hospital	Wingham	20	4	263	13	280	265	7	8
General Hospital	Woodstock	60	21	649	90	760	691	44	25
Totals, 1923		10,935	6,907	119,689	13,123	139,719	125,482	7,217	7,020
Totals, 1922		10,662	6,985	113,845	12,073	132,903	119,653	6,307	6,943

TABLE II.—Showing the collective stay in days of the adult and infant patients, also the average length of time each patient was under treatment.

Hospital.	Location.	No. of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including infants.
Rosamond Memorial Hospital	Almonte	279	505	2,199	2,704	9.6
Royal Victoria Hospital	Barrie	892	1,259	15,121	16,380	18.6
General Hospital	Belleville	1,654	2,230	17,363	19,593	17.8
General Hospital	Bowmanville	394	701	4,823	5,524	14.0
General Hospital	Brantford	2,355	3,817	33,604	37,421	15.8
Brant Sanatorium	"	73	.....	12,914	12,914	176.9
General Hospital	Brockville	1,019	1,109	15,182	16,291	15.9
St. Vincent de Paul Hospital	"	1,162	1,220	16,566	17,786	15.3
General Hospital	Chatham	1,062	940	12,859	13,799	12.9
St. Joseph's Hospital	"	849	1,495	11,115	12,610	14.8
Lady Minto Hospital	Chapleau	324	328	3,647	3,975	12.2
Public Hospital	Clinton	159	233	1,247	1,480	9.3
Cobalt Mines Hospital	Cobalt	617	253	7,243	7,496	12.1
Cottage Hospital	Cobourg	491	604	4,558	5,162	10.5
Lady Minto Hospital	Cochrane	453	408	6,811	7,219	15.9
General and Marine Hospital	Collingwood	657	702	11,406	12,108	18.4
General Hospital	Cornwall	641	621	9,908	10,529	16.4
Hotel Dieu Hospital	"	1,487	987	16,207	17,194	11.6
Haldimand County Memorial Hospital	Dunnville	245	115	1,930	2,045	8.3
Red Cross Memorial Hospital	Durham	111	.....	1,189	1,189	10.7
Royal Alexandra Hospital	Fergus	285	312	4,733	5,045	17.7
McKellar General Hospital	Fort William	3,184	2,655	32,254	34,909	11.0
General Hospital	Galt	1,363	2,097	17,037	19,134	14.0
General and Marine Hospital	Goderich	250	548	2,798	3,346	13.3
Muskoka Cottage Sanatorium	Gravenhurst	115	.....	10,592	10,592	92.1
Muskoka Hospital for Consumptives	"	681	.....	86,215	86,215	126.6
General Hospital	Guelph	1,526	1,792	18,960	20,752	13.6
St. Joseph's Hospital	"	1,130	1,131	15,347	16,478	14.5
City Hospital	Hamilton	8,412	9,991	128,298	138,289	16.4
St. Joseph's Hospital	"	3,239	3,004	35,409	38,413	11.8
Mountain Sanatorium	"	372	.....	71,229	71,229	191.4
Hanover General Hospital	Hanover	22	22	89	111	5.0
St. Paul's Hospital	Hearst	46	93	415	508	12.5
General Hospital	Ingersoll	238	524	2,759	3,283	13.7
General Hospital	Kenora	446	635	7,627	8,262	18.5
St. Joseph's Hospital	"	326	89	4,272	4,361	13.4
General Hospital	Kincardine	280	648	2,961	3,609	12.8
General Hospital	Kingston	3,712	544	54,535	55,079	14.8
Hotel Dieu Hospital	"	2,315	1,432	34,634	36,066	15.6
Kitchener and Waterloo Hospital	Kitchener	1,386	1,347	13,198	14,545	10.5
Freeport Sanatorium	"	124	.....	16,287	16,287	131.0
Ross Memorial Hospital	Lindsay	811	492	8,447	8,939	11.0
Listowel Memorial Hospital	Listowel	207	.....	2,012	2,012	9.7
General Hospital	London	4,205	3,408	83,405	86,813	20.6
St. Joseph's Hospital	"	2,169	2,408	31,375	33,783	15.5
Bethesda Hospital	"	642	3,397	5,842	9,239	14.4
Queen Alexandra Sanatorium	"	619	.....	37,976	37,976	61.3
Victoria Home for Incurables	"	95	.....	25,410	25,410	267.5
Rosedale War Memorial Hospital	Matheson	135	26	1,228	1,254	9.2
General Hospital	Mattawa	418	.....	6,823	6,823	16.3
General Hospital	Midland	578	642	6,787	7,429	12.8
Mount Forest General Hospital	Mount Forest	128	.....	1,909	1,909	14.6
Lady Minto Hospital	New Liskeard	429	457	5,822	6,279	14.6
York County Hospital	Newmarket	257	23	2,146	2,169	8.4
General Hospital	Niagara Falls	1,126	1,289	14,875	16,164	14.3
Cottage Hospital	Niagara-on-the-Lake	115	30	1,176	1,206	10.5
Queen Victoria Hospital	North Bay	734	894	8,420	9,314	12.7
General Hospital	Orangeville	237	373	2,765	3,138	13.2
General Hospital	Orillia	1,020	.....	13,705	13,705	13.4
General Hospital	Oshawa	1,394	2,260	12,910	15,170	10.9
General Protestant Hospital	Ottawa	3,103	.....	51,491	51,491	16.6
Roman Catholic Hospital	"	3,972	.....	58,595	58,595	14.7
Maternity Hospital	"	787	.....	5,015	5,015	6.3
Misericordia Maternity Hospital	"	792	14,144	20,331	34,475	43.4
St. Luke's General Hospital	"	2,438	.....	45,040	45,040	18.4
Protestant Infants' Hospital	"	119	.....	6,227	6,227	52.3
Salvation Army Maternity Hospital	"	1,413	461	8,406	8,867	6.2
Royal Sanatorium	"	181	.....	24,480	24,480	135.2
Perley Home for Incurables	"	75	.....	18,838	18,838	251.0
General and Marine Hospital	Owen Sound	981	1,310	11,133	12,443	12.3
Willett Hospital	Paris	319	1	3,266	3,267	10.2
John R. Stone Memorial Hospital	Parry Sound	286	231	2,740	2,971	10.4
St. Joseph's Hospital	"	333	597	3,401	3,998	12.0
Cottage Hospital	Pembroke	507	369	6,544	6,913	13.7
General Hospital	"	1,475	1,019	23,732	24,751	16.7
General Hospital	Penetanguishene	272	306	1,283	1,589	5.8

TABLE II.—Showing the collective stay in days of the adult and infant patients, also the average length of time each patient was under treatment.—*Concluded.*

Hospital.	Location.	No. of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including infants.
Great War Memorial Hospital	Perth	203	48	2,310	2,358	11.6
Nicholls Hospital	Peterborough	1,421	2,555	14,994	17,549	12.3
St. Joseph's Hospital	"	918	1,402	11,680	13,082	14.2
C. E. Englehart Hospital	Petrolia	298	513	4,670	5,183	17.4
Prince Edward County Hospital	Picton	235	237	1,659	1,896	8.0
General Hospital	Port Arthur	879	1,030	11,078	12,108	13.7
St. Joseph's Hospital	"	1,370	179	16,200	16,379	11.9
General Hospital	Port Hope	322	698	3,900	4,598	14.3
Victoria General Hospital	Renfrew	530	808	5,619	6,427	12.1
General and Marine Hospital	St. Catharines	1,407	3,239	16,539	19,778	14.0
Consumptive Sanatorium	"	39	.....	4,385	4,385	112.7
Amasa Wood Hospital	St. Thomas	1,004	1,489	9,586	11,075	11.0
General Hospital	Sarnia	1,001	1,470	12,368	13,838	13.8
Plummer Memorial Hospital	Sault Ste. Marie	544	.....	6,209	6,209	11.4
General Hospital	"	952	41	14,445	14,486	15.3
General Hospital	Sioux Lookout	289	101	3,184	3,285	11.4
Public Hospital	Smith's Falls	638	863	8,879	9,742	15.2
St. Francis' Hospital	"	500	433	7,056	7,489	14.8
General Hospital	Stratford	1,182	844	14,295	15,139	12.8
General Hospital	Strathroy	324	728	5,255	5,983	18.4
St. Joseph's Hospital	Sudbury	2,078	907	29,655	30,562	14.7
General Hospital	Toronto	12,712	.....	208,613	208,613	16.4
Grace Hospital	"	2,994	41	35,899	35,940	12.0
Hospital for Sick Children	"	6,346	.....	91,706	91,706	14.3
Orthopedic Hospital	"	543	.....	8,322	8,322	15.3
St. John's Hospital	"	1,182	16	17,362	17,378	14.7
St. Joseph's Hospital	"	1,518	.....	24,567	24,567	16.2
St. Michael's Hospital	"	5,055	.....	87,606	87,606	17.3
Salvation Army Women's Hospital	"	758	4,523	6,403	10,926	14.4
Wellesley Hospital	"	2,246	3,532	28,030	31,562	14.1
Western Hospital	"	4,483	4,494	56,696	61,190	13.6
Women's College Hospital	"	1,256	29	13,600	13,629	10.8
The Preventorium	"	216	.....	24,776	24,776	114.7
Home for Incurable Children	"	40	.....	11,227	11,227	280.5
Toronto Hospital for Incurables	"	299	.....	80,690	80,690	269.9
General Hospital	Walkerton	198	223	2,534	2,759	13.9
General Hospital	Welland	776	573	8,976	9,549	12.1
Toronto Hospital for Consumptives King Edward Sanatorium Queen Mary Hospital for Children	Weston	726	.....	117,137	117,137	161.3
Grace Hospital	Windsor	1,707	2,109	14,443	16,552	9.1
Hotel Dieu	"	2,748	3,364	26,819	30,183	10.9
General Hospital	Wingham	280	97	2,638	2,735	9.8
General Hospital	Woodstock	760	878	9,032	9,910	13.0
Totals, 1923	.....	139,719	115,994	2,410,138	2,526,132	18.0
Totals, 1922	.....	132,903	141,682	2,451,247	2,592,929	19.5

TABLE III.—Showing the deductions which have to be made from the collective stay of patients for the protracted residence of incurables, lying-in cases, etc. For persons coming within these classes only ten cents per day is allowed.

Hospital.	Location.	Collective days' stay, exclusive of infants under one year of age.	Deduct for incurables and lying-in cases for which only Refuge rate is allowed, also deduct the days' stay of patients who paid over $10.50 per week.	No. of days' stay for which hospital allowance is made.
Rosamond Memorial Hospital	Almonte	2,199	1,002	1,197
Royal Victoria Hospital	Barrie	15,121	3,464	11,657
General Hospital	Belleville	17,363	12,775	4,588
General Hospital	Bowmanville	4,823	339	4,484
General Hospital	Brantford	33,604	11,265	22,339
Brant Sanatorium	"	12,914	.....	12,914
General Hospital	Brockville	15,182	9,373	5,809
St. Vincent de Paul Hospital	"	16,566	10,841	5,725
General Hospital	Chatham	12,859	7,017	5,842
St. Joseph's Hospital	"	11,115	7,432	3,683
Lady Minto Hospital	Chapleau	3,647	208	3,439
Public Hospital	Clinton	1,247	71	1,176
Cobalt Mines Hospital	Cobalt	7,243	259	6,984
Cottage Hospital	Cobourg	4,558	2,093	2,465
Lady Minto Hospital	Cochrane	6,811	1,529	5,282
General and Marine Hospital	Collingwood	11,406	5,668	5,738
General Hospital	Cornwall	9,908	5,076	4,832
Hotel Dieu Hospital	"	16,207	2,397	13,810
Haldimand County War Memorial Hospital	Dunnville	1,930	.....	1,930
Red Cross Hospital	Durham	1,189	40	1,149
Royal Alexandra Hospital	Fergus	4,733	3,550	1,183
McKellar General Hospital	Fort William	32,254	16,140	16,114
General Hospital	Galt	17,037	9,499	7,538
General and Marine Hospital	Goderich	2,798	1,631	1,167
Muskoka Cottage Sanatorium	Gravenhurst	10,592	10,592	.....
Muskoka Hospital for Consumptives	"	86,215	.....	86,215
General Hospital	Guelph	18,960	9,030	9,930
St. Joseph's Hospital	"	15,347	4,035	11,312
City Hospital	Hamilton	128,298	38,272	90,026
St. Joseph's Hospital	"	35,409	15,480	19,929
Mountain Sanatorium	"	71,229	.....	71,229
Hanover General Hospital	Hanover	89	.....	89
St. Paul's Hospital	Hearst	415	.....	415
General Hospital	Ingersoll	2,759	1,815	944
General Hospital	Kenora	7,627	3,229	4,398
St. Joseph's Hospital	"	4,272	876	3,396
General Hospital	Kincardine	2,961	1,712	1,249
General Hospital	Kingston	54,535	27,663	26,872
Hotel Dieu Hospital	"	34,634	10,846	23,788
Kitchener and Waterloo Hospital	Kitchener	13,198	7,386	5,812
Freeport Sanatorium	"	16,287	.....	16,287
Ross Memorial Hospital	Lindsay	8,447	4,687	3,760
Listowel Memorial Hospital	Listowel	2,012	.....	2,012
General Hospital	London	83,405	55,608	27,797
St. Joseph's Hospital	"	31,375	25,034	6,341
Bethesda Hospital	"	5,842	111	5,731
Queen Alexandra Sanatorium	"	161,042	123,066	37,976
Victoria Home for Incurables	"	25,410	.....	25,410
Rosedale War Memorial Hospital	Matheson	1,228	77	1 151
General Hospital	Mattawa	6,823	1,148	5,675
General Hospital	Midland	6,787	2,900	3,887
Mount Forest General Hospital	Mount Forest	1,909	.....	1,909
Lady Minto Hospital	New Liskeard	5,822	5,490	332
York County Hospital	Newmarket	2,146	.....	2,146
General Hospital	Niagara Falls	14,875	5,010	9,865
Cottage Hospital	Niagara-on-the-Lake	1,176	.....	1,176
Queen Victoria Hospital	North Bay	8,420	3,204	5,216
General Hospital	Orangeville	2,765	1,585	1,180
General Hospital	Orillia	13,705	5,778	7,927
General Hospital	Oshawa	12,910	7,435	5,475
General Protestant Hospital	Ottawa	51,491	29,663	21,828
Roman Catholic Hospital	"	58,595	30,146	28,449
Maternity Hospital	"	5,015	3,427	1,588
Misericordia Maternity Hospital	"	20,331	17,572	2,759
St. Luke's General Hospital	"	45,040	28,595	16,445
Protestant Infants' Home	"	6,227	695	5,532
Salvation Army Maternity Hospital	"	8,406	.....	8,406
Royal Sanatorium	"	24,480	.....	24,480
Perley Home for Incurables	"	18,838	.....	18,838
General and Marine Hospital	Owen Sound	11,133	6,603	4,530
Willett Hospital	Paris	3,266	110	3,156
John R. Stone Memorial Hospital	Parry Sound	2,740	1,328	1,412
St. Joseph's Hospital	"	3,401	208	3,193
Cottage Hospital	Pembroke	6,544	2,437	4,107
General Hospital	"	23,732	7,819	15,913

TABLE III.—Showing the deductions which have to be made from the collective stay of patients for the protracted residence of incurables, lying-in cases, etc. For persons coming within these classes only ten cents per day is allowed.—*Concluded.*

Hospitals.	Location.	Collective days' stay, exclusive of infants under one year of age.	Deduct for incurables and lying-in cases for which only Refuge rate is allowed, also deduct the days' stay of patients who paid over $10.50 per week.	No. of days' stay for which hospital allowance is made.
General Hospital	Penetanguishene	1,283	415	868
Great War Memorial Hospital	Perth	2,310	.....	2,310
Nicholls Hospital	Peterborough	14,994	9,695	5,299
St. Joseph's Hospital	"	11,680	3,382	8,298
C. E. Englehart Hospital	Petrolia	4,670	3,383	1,287
Prince Edward County Hospital	Picton	1,659	21	1,638
General Hospital	Port Arthur	11,078	4,660	6,418
St. Joseph's Hospital	"	16,200	6,079	10,121
General Hospital	Port Hope	3,900	899	3,001
Victoria General Hospital	Renfrew	5,619	2,561	3,058
General and Marine Hospital	St. Catharines	16,539	11,208	5,331
Consumptive Sanatorium	"	4,385	.....	4,385
Amasa Wood Hospital	St. Thomas	9,586	4,415	5,171
General Hospital	Sarnia	12,368	7,248	5,120
Plummer Memorial Hospital	Sault Ste. Marie	6,209	260	5,949
General Hospital	"	14,445	7,511	6,934
General Hospital	Sioux Lookout	3,184	101	3,083
Public Hospital	Smith's Falls	8,879	3,845	5,034
St. Francis Hospital	"	7,056	3,616	3,440
General Hospital	Stratford	14,295	7,782	6,513
General Hospital	Strathroy	5,255	279	4,976
St. Joseph's Hospital	Sudbury	29,655	9,874	19,781
General Hospital	Toronto	208,613	80,201	128,412
Grace Hospital	"	35,899	14,664	21,235
Hospital for Sick Children	"	91,706	18,180	73,526
Orthopedic Hospital	"	8,322	6,095	2,227
St. John's Hospital	"	17,362	3,257	14,105
St. Joseph's Hospital	"	24,567	693	23,874
St. Michael's Hospital	"	87,606	25,322	62,284
Salvation Army Women's Hospital	"	6,403	24	6,379
Wellesley Hospital	"	28,030	27,537	493
Western Hospital	"	56,696	21,448	35,248
Women's College Hospital	"	13,600	49	13,551
The Preventorium	"	24,776	.....	24,776
Home for Incurable Children	"	11,227	.....	11,227
Toronto Hospital for Incurables	"	80,690	.....	80,690
General Hospital	Walkerton	2,534	1,451	1,083
General Hospital	Welland	8,976	3,659	5,317
Toronto Hospital for Consumptives King Edward Sanatorium Queen Mary Hospital for Children	Weston	117,137	.....	117,137
Grace Hospital	Windsor	14,443	64	14,379
Hotel Dieu Hospital	"	26,819	12,430	14,389
General Hospital	Wingham	2,638	2,366	272
General Hospital	Woodstock	9,032	6,060	2,972
Totals, 1923	.....	2,533,204	923,075	1,610,129
Totals, 1922	.....	2,451,247	904,953	1,546,294

TABLE IV.—Relative to Income of Hospitals.

Hospital.	Location.	Amount received from municipalities as a grant and for patients' maintenance.	Amount received from patients for treatment and care.	Amount received as income from property or investments belonging to hospital.	Subscriptions and donations of private individuals and incidental receipts.	Total receipts from all sources other than the Government grant.
		$ c.	$ c.	$ c.	$ c.	$ c.
Rosamond Memorial Hospital	Almonte	560 00	5,922 05	683 23	2,233 92	9,399 20
Royal Victoria Hospital	Barrie	1,307 00	24,238 20	834 19	4,221 09	30,600 48
General Hospital	Belleville	13,441 50	43,312 70	214 84	3,684 10	60,653 14
General Hospital	Bowmanville	1,300 00	14,021 29	15 00	312 15	15,648 44
General Hospital	Brantford	41,516 31	46,832 06	180 00	11,648 14	100,176 51
Brant Sanatorium	"	14,767 93	2,157 10	.....	2,743 65	19,668 68
General Hospital	Brockville	2,000 00	35,665 14	1,635 69	12,463 01	51,763 84
St. Vincent de Paul Hospital	"	2,057 50	29,483 31	.....	17,989 64	49,530 45
General Hospital	Chatham	5,552 50	37,134 80	.....	6,887 62	49,574 92
St. Joseph's Hospital	"	4,842 16	25,123 54	.....	519 07	30,484 77
Lady Minto Hospital	Chapleau	300 00	6,709 70	.....	4,166 43	11,176 13
Public Hospital	Clinton	500 00	4,363 91	.....	1,006 68	5,870 59
Cobalt Mines Hospital	Cobalt	4,000 00	7,912 45	.....	13,022 92	24,935 37
Cottage Hospital	Cobourg	1,525 00	14,005 81	.....	527 33	16,058 14
Lady Minto Hospital	Cochrane	235 60	10,621 81	.....	3,444 73	14,302 14
General and Marine Hospital	Collingwood	2,500 00	21,013 41	.....	1,140 49	24,653 90
General Hospital	Cornwall	2,800 00	18,989 11	3,681 90	20,091 94	45,562 95
Hotel Dieu Hospital	"	2,800 00	18,060 80	.....	6,310 20	27,171 00
Haldimand Co. War Mem. Hosp.	Dunnville	1,500 00	7,267 96	.....	5,097 91	13,865 87
Red Cross Hospital	Durham	1,000 00	2,812 00	.....	.....	3,812 00
Royal Alexandra Hospital	Fergus	1,246 25	11,119 62	.....	354 64	12,720 51
McKellar General Hospital	Fort William	26,619 39	69,942 71	.....	1,710 82	98,272 92
General Hospital	Galt	10,600 00	36,255 74	512 50	1,045 46	48,413 70
General and Marine Hospital	Goderich	1,060 00	6,725 72	59 50	2,517 81	10,303 03
Muskoka Cottage Sanatorium	Gravenhurst	.....	46,012 46	1,465 72	4,041 48	51,519 66
Muskoka Hosp. for Consumptives.	"	80,814 82	25,317 79	12,134 27	72,019 89	190,286 77
General Hospital	Guelph	19,577 05	49,018 94	.....	8,028 56	76,624 55
St. Joseph's Hospital	"	3,927 90	24,167 16	.....	.....	28,095 06
City Hospital	Hamilton	147,127 47	175,439 61	.....	.....	322,567 08
St. Joseph's Hospital	"	7,636 50	93,075 06	.....	2,319 69	103,031 25
Mountain Sanatorium	"	68,316 57	24,971 35	328 95	.....	93,616 87
Hanover General Hospital	Hanover	.....	251 50	.....	719 63	971 13
St. Paul's Hospital	Hearst	.....	541 50	.....	446 70	988 20
General Hospital	Ingersoll	1,000 00	8,186 41	708 15	827 00	10,721 56
General Hospital	Kenora	2,500 00	10,046 70	.....	583 83	13,130 53
St. Joseph's Hospital	"	16 50	7,314 88	1,059 79	1,878 96	10,270 13
General Hospital	Kincardine	.....	4,792 00	.....	734 37	5,526 37
General Hospital	Kingston	21,040 00	95,013 65	.....	6,477 48	122,531 13
Hotel Dieu Hospital	"	7,300 00	51,500 00	.....	9,902 54	68,702 54
Kitchener and Waterloo Hospital	Kitchener	21,170 18	39,987 80	1,651 18	6,398 50	69,207 66
Freeport Sanatorium	"	9,000 00	25,601 88	.....	9,016 19	43,618 07
Ross Memorial Hospital	Lindsay	1,700 00	18,048 08	.....	4,481 00	24,229 08
Listowel Memorial Hospital	Listowel	3,200 00	7,137 10	11 80	1,055 53	11,404 43
General Hospital	London	145,318 42	183,889 87	529 50	3,893 94	333,631 73
St. Joseph's Hospital	"	3,142 50	89,369 43	.....	5,000 00	97,511 93
Bethesda Hospital	"	350 00	15,017 30	.....	6,715 59	22,087 89
Queen Alexandra Sanatorium	"	49,387 75	15,228 00	2,907 38	167,273 66	234,796 79
Victoria Home for Incurables	"	15,110 50	17,139 61	413 28	697 55	33,350 94
Rosedale War Memorial Hospital	Matheson	.....	2,009 06	.....	4,223 49	6,232 49
General Hospital	Mattawa	100 00	8,401 16	.....	3,154 98	11,656 14
General Hospital	Midland	1,000 00	16,374 58	.....	296 01	17,670 59
Mount Forest General Hospital	Mount Forest	164 50	5,199 99	.....	4,054 96	9,419 45
Lady Minto Hospital	New Liskeard	.....	13,095 83	.....	3,249 68	16,345 51
York County Hospital	Newmarket	1,268 50	6,458 38	.....	105 00	7,831 88
General Hospital	Niagara Falls	4,350 00	39,597 46	.....	1,237 10	45,184 56
Cottage Hospital	Niag.-on-the-L.	720 65	3,104 64	.....	1,812 83	5,638 12
Queen Victoria Hospital	North Bay	1,382 05	21,577 24	24 97	831 18	23,815 44
General Hospital	Orangeville	.....	7,527 84	.....	.....	7,527 84
General Hospital	Orillia	4,324 00	28,486 46	.....	390 02	33,200 48
General Hospital	Oshawa	2,916 95	39,207 53	.....	9,952 22	52,076 70
General Protestant Hospital	Ottawa	29,786 30	121,237 88	.....	3,123 00	154,147 18
Roman Catholic Hospital	"	32,055 46	105,445 53	2,314 46	28,803 21	168,618 66
Maternity Hospital	"	2,260 00	19,389 11	.....	5,842 46	27,491 57
Misericordia Maternity Hospital	"	3,425 00	6,758 45	455 00	14,698 09	25,336 54
St. Luke's General Hospital	"	19,731 00	107,519 44	.....	7,094 76	134,345 20
Protestant Infants' Hospital	"	10,340 50	1,430 98	54 19	6,821 64	18,647 31
Salvation Army Maternity Hosp.	"	1,010 00	27,371 83	.....	3,815 02	32,196 85
Royal Sanatorium	"	31,543 20	3,539 31	.....	.....	35,082 51
Perley Home for Incurables	"	2,970 00	8,014 53	305 00	2,300 00	13,589 53
General and Marine Hospital	Owen Sound	4,500 00	24,072 06	.....	4,117 99	32,690 05
Willett Hospital	Paris	1,300 00	6,006 05	553 62	2,470 70	10,330 37
John R. Stone Memorial Hospital	Parry Sound	147 25	5,393 33	.....	1,366 78	6,907 36
St. Joseph's Hospital	"	516 50	5,489 62	.....	50 00	6,056 12
Cottage Hospital	Pembroke	2,685 60	12,257 62	350 00	377 31	15,670 53
General Hospital	"	5,352 95	27,577 45	240 00	2,486 93	35,657 33
General Hospital	Penetang'shene	2,500 00	3,245 74	.....	1,096 53	6,842 27
Great War Memorial Hospital	Perth	.....	6,777 12	13 75	.....	6,790 87

TABLE IV.—Relative to Income of Hospitals.—*Concluded.*

Hospital.	Location.	Amount received from municipalities as a grant and for patients' maintenance.	Amount received from patients for treatment and care.	Amount received as income from property or investments belonging to hospital.	Subscriptions and donations of private individuals and incidental receipts.	Total receipts from all sources other than the Government grant.
		$ c.	$ c.	$ c.	$ c.	$ c.
Nicholls Hospital	Peterborough	9,600 00	43,485 50	11,907 14	10 00	65,002 64
St. Joseph's Hospital	"	1,574 50	18,920 16	.....	.....	20,494 66
C. E. Englehart Hospital	Petrolia	2,000 00	12,330 31	3,275 00	753 64	18,358 95
Prince Edward County Hospital	Picton	1,500 00	6,893 24	160 28	1,540 77	10,094 29
General Hospital	Port Arthur	5,030 82	23,432 76	.....	4,661 74	33,125 32
St. Joseph's Hospital	"	5,100 00	29,402 41	300 00	7,802 00	42,604 41
General Hospital	Port Hope	1,326 00	8,954 24	1,083 54	536 40	11,900 18
Victoria General Hospital	Renfrew	823 30	13,707 52	.....	353 75	14,884 57
General and Marine Hospital	St. Catharines	19,923 00	35,573 36	1,342 15	16,177 51	73,016 02
Consumptive Sanatorium	"	4,771 50	702 90	277 50	2,245 00	7,996 90
Amasa Wood Hospital	St. Thomas	1,000 00	27,216 97	340 33	1,775 70	30,333 00
General Hospital	Sarnia	3,500 00	33,722 70	1,666 52	174 22	39,063 44
Plummer Memorial Hospital	Sault Ste. Marie	.....	11,773 70	.....	5,872 04	17,645 74
General Hospital	"	1,791 20	25,543 75	.....	5,287 50	32,622 45
General Hospital	Sioux Lookout	.....	6,384 89	.....	.....	6,384 89
Public Hospital	Smith's Falls	1,650 00	21,449 05	1,735 84	4,172 09	29,006 98
St. Francis Hospital	"	900 00	14,795 98	.....	5,806 04	21,502 02
General Hospital	Stratford	6,800 00	37,768 78	252 04	4,530 83	49,351 65
General Hospital	Strathroy	4,287 50	12,708 13	.....	31 00	17,026 63
St. Joseph's Hospital	Sudbury	1,794 00	56,908 05	.....	3,705 06	62,407 11
General Hospital	Toronto	124,856 32	622,503 96	66,710 60	110,360 66	924,431 54
Grace Hospital	"	20,275 44	104,431 05	2,714 77	7,328 75	134,750 01
Hospital for Sick Children	"	112,525 38	68,694 30	7,012 91	68,419 16	256,651 75
Orthopedic Hospital	"	188 00	20,536 82	78 00	17,868 92	38,671 74
St. John's Hospital	"	2,644 20	57,534 98	326 75	4,594 80	65,100 73
St. Joseph's Hospital	"	16,545 00	45,300 60	.....	1,911 00	63,756 60
St. Michael's Hospital	"	76,107 32	157,025 98	.....	3,034 81	236,168 15
Salvation Army Women's Hosp.	"	.....	13,675 66	.....	2,856 75	16,532 41
Wellesley Hospital	"	762 50	205,439 37	.....	.....	206,201 87
Western Hospital	"	34,655 98	150,500 67	.....	5,086 84	190,243 49
Women's College Hospital	"	7,919 56	38,242 63	371 40	4,790 52	51,324 11
The Preventorium	"	24,925 75	.....	.....	8,423 16	33,348 91
Home for Incurable Children	"	1,893 10	1,969 70	3,622 10	13,393 95	20,878 85
Toronto Hospital for Incurables	"	90,588 50	24,574 75	7,511 10	12,047 06	134,721 41
General Hospital	Walkerton	2,700 00	6,813 32	.....	581 54	10,094 86
General Hospital	Welland	.....	22,921 03	.....	8,696 99	31,618 02
Toronto Hosp. for Consumptives, King Edward Sanatorium, Queen Mary Hosp. for Children	Weston	150,380 10	15,288 63	7,254 93	39,338 33	212,261 99
Grace Hospital	Windsor	.....	48,196 62	.....	9,881 47	58,078 09
Hotel Dieu Hospital	"	7,385 05	47,683 27	.....	22,007 00	77,075 32
General Hospital	Wingham	400 00	9,610 85	.....	2,656 90	12,667 75
General Hospital	Woodstock	5,000 00	24,393 69	1,440 79	878 10	31,712 58
Totals, 1923		1,671,071 73	4,336,337 40	152,721 55	959,015 83	7,119,146 51
Totals, 1922		1,789,112 43	4,017,134 37	145,308 06	783,622 83	6,735,177 69

TABLE V.—Showing the basis upon which statutory aid is granted.

Hospital	Location	Collective days' stay upon which Hospital grants are based	Amount of grant for proper Hospital cases	Collective days' stay upon which computation of Refuge rate is based	Computation of 10 cents per day Refuge rate for cases for Hospital treatment over time allowance	Days at $2.00	$ c.	Amount payable to each Hospital from appropriation by the Legislature of 1923
			$ c.		$ c.	$ c.	$ c.	$ c.
Rosamond Memorial Hospital	Almonte	1,197	598 50	.....	.....	.....	.....	598 50
Royal Victoria Hospital	Barrie	11,657	5,828 50	73	7 30	.....	.....	5,835 80
General Hospital	Belleville	4,588	2,294 00	553	55 30	.....	.....	2,349 30
General Hospital	Bowmanville	4,484	2,242 00	339	33 90	.....	.....	2,275 90
General Hospital	Brantford	22,339	11,169 50	1,400	140 00	.....	.....	11,309 50
General Hospital	Brockville	5,809	2,904 50	495	49 50	.....	.....	2,954 50
St. Vincent de Paul Hospital	"	5,725	2,862 50	331	33 10	.....	.....	2,895 60
General Hospital	Chatham	5,842	2,921 00	127	12 70	.....	.....	2,933 70
St. Joseph's Hospital	"	3,683	1,841 50	279	27 90	.....	.....	1,869 40
Lady Minto Hospital	Chapleau	3,439	1,719 50	75	7 50	133	266 00	1,993 00
Public Hospital	Clinton	1,176	588 00	71	7 10	.....	.....	595 10
Cobalt Mines Hospital	Cobalt	6,984	3,492 00	259	25 90	.....	.....	3,517 90
Cottage Hospital	Cobourg	2,465	1,232 50	16	1 60	.....	.....	1,234 10
Lady Minto Hospital	Cochrane	5,282	2,641 00	124	12 40	1,405	2,810 00	5,463 40
General and Marine Hospital	Collingwood	5,738	2,869 00	1,151	115 10	.....	.....	2,984 10
General Hospital	Cornwall	4,832	2,416 00	742	74 20	.....	.....	2,490 20
Hotel Dieu Hospital	"	13,810	6,905 00	489	48 90	.....	.....	6,953 90
Haldimand County War Memorial Hospital	Dunnville	1,930	965 00	.....	.....	.....	.....	965 00
Red Cross Memorial Hospital	Durham	1,149	574 50	40	4 00	.....	.....	578 50
Royal Alexandra Hospital	Fergus	1,183	591 50	17	1 70	.....	.....	593 20
McKellar General Hospital	Fort William	16,114	8,057 00	3,089	308 90	1,143	2,286 00	10,651 90
General Hospital	Galt	7,538	3,769 00	1,262	126 20	.....	.....	3,895 20
General and Marine Hospital	Goderich	1,167	583 50	.....	.....	.....	.....	583 50
General Hospital	Guelph	9,930	4,965 00	.....	.....	.....	.....	4,965 00
St. Joseph's Hospital	"	11,312	5,656 00	133	13 30	.....	.....	5,669 30
City Hospital	Hamilton	90,026	45,013 00	10,443	1,044 30	.....	.....	46,057 30
St. Joseph's Hospital	"	19,929	9,964 50	219	21 90	.....	.....	9,986 40
Hanover General Hospital	Hanover	89	44 50	.....	.....	.....	.....	44 50
St. Paul's Hospital	Hearst	415	207 50	.....	.....	.....	.....	207 50
General Hospital	Ingersoll	944	472 00	.....	.....	.....	.....	472 00
General Hospital	Kenora	4,398	2,199 00	967	96 70	579	1,158 00	3,453 70
St. Joseph's Hospital	"	3,396	1,698 00	.....	.....	88	176 00	1,874 00

General Hospital	Kincardine	1,249	624 50	719	71 90			696 40
General Hospital	Kingston	26,872	13,436 00	6,968	696 80			14,132 80
Hotel Dieu Hospital	"	23,788	11,894 00	1,092	109 20			12,003 20
Kitchener and Waterloo Hospital	Kitchener	5,812	2,906 00	357	35 70			2,941 70
Ross Memorial Hospital	Lindsay	3,760	1,880 00	118	11 80			1,891 80
Listowel Memorial Hospital	Listowel	2,012	1,006 00					1,006 00
General Hospital	London	27,797	13,898 50	11,074	1,107 40			15,005 90
St. Joseph's Hospital	"	6,341	3,170 50	598	59 80			3,230 30
Bethesda Hospital	"	5,731	2,865 50	111	11 10			2,876 60
Victoria Home for Incurables	"	25,410	12,705 00					12,705 00
Rosedale War Memorial Hospital	Matheson	1,151	575 50			77	154 00	729 00
General Hospital	Mattawa	5,675	2,837 50	111	11 10	262	524 00	3,372 60
General Hospital	Midland	3,887	1,943 50	525	52 50			1,996 00
Mount Forest General Hospital	Mount Forest	1,909	954 50					954 50
Lady Minto Hospital	New Liskeard	332	166 00			570	1,140 00	1,306 00
York County Hospital	Newmarket	2,146	1,073 00					1,073 00
General Hospital	Niagara Falls	9,865	4,932 50	406	40 60			4,973 10
Cottage Hospital	Niag.-on-the-Lake	1,176	588 00					588 00
Queen Victoria Hospital	North Bay	5,216	2,608 00	74	7 40	49	98 00	2,713 40
General Hospital	Orangeville	1,180	590 00					590 00
General Hospital	Orillia	7,927	3,963 50	845	84 50			4,048 00
General Hospital	Oshawa	5,475	2,737 50	14	1 40			2,738 90
General Protestant Hospital	Ottawa	21,828	10,914 00	1,663	166 30			11,080 30
Roman Catholic Hospital	"	28,449	14,224 50	2,526	252 60			14,477 10
Maternity Hospital	"	1,588	794 00					794 00
Misericordia Maternity Hospital	"	2,759	1,379 50	9,830	983 00			2,362 50
St. Luke's General Hospital	"	16,445	8,222 50	2,047	204 70	120	240 00	8,667 20
Protestant Infants' Hospital	"	5,532	2,766 00	695	69 50			2,835 50
Salvation Army Maternity Hospital	"	8,406	4,203 00					4,203 00
Perley Home for Incurables	"	18,838	9,419 00					9,419 00
General and Marine Hospital	Owen Sound	4,530	2,265 00	38	3 80			2,268 80
Willett Hospital	Paris	3,156	1,578 00	110	11 00			1,589 00
John R. Stone Memorial Hospital	Parry Sound	1,412	706 00			255	510 00	1,216 00
St. Joseph's Hospital	"	3,193	1,596 50			208	416 00	2,012 50
Cottage Hospital	Pembroke	4,107	2,053 50	89	8 90			2,062 40
General Hospital	"	15,913	7,956 50	758	75 80			8,032 30
General Hospital	Penetanguishene	868	434 00	42	4 20			438 20
Great War Memorial Hospital	Perth	2,310	1,155 00					1,155 00
Nicholls Hospital	Peterborough	5,299	2,649 50	92	9 20			2,658 70
St. Joseph's Hospital	"	8,298	4,149 00	477	47 70			4,196 70
C. E. Englehart Hospital	Petrolia	1,287	643 50	613	61 30			704 80
Prince Edward County Hospital	Picton	1,638	819 00	21	2 10			821 10

TABLE V.—Showing the basis on which statutory aid is granted.—*Concluded.*

Hospitals	Location	Collective days' stay upon which Hospital grants are based	Amount of grant for proper Hospital cases	Collective days' stay upon which computation of Refuge rate is based	Computation of 10 cents per day Refuge rate for cases for Hospital treatment over time allowance	Days at $2.00	$ c.	Amount payable to each Hospital from appropriation by the Legislature of 1923
			$ c.		$ c.		$ c.	$ c.
General Hospital	Port Arthur	6,418	3,209 00	865	86 50	204	408 00	3,703 50
St. Joseph's Hospital	"	10,121	5,060 50	937	93 70	276	552 00	5,706 20
General Hospital	Port Hope	3,001	1,500 50	.....	.....	.....	.....	1,500 50
Victoria General Hospital	Renfrew	3,058	1,529 00	.....	.....	.....	.....	1,529 00
General and Marine Hospital	St. Catharines	5,331	2,665 50	644	64 40	.....	.....	2,729 90
Amasa Wood Hospital	St. Thomas	5,171	2,585 50	75	7 59	.....	.....	2,593 00
General Hospital	Sarnia	5,120	2,560 00	494	49 40	.....	.....	2,609 40
Plummer Memorial Hospital	Sault Ste. Marie	5,949	2,974 50	234	23 40	26	52 00	3,049 90
General Hospital	"	6,934	3,467 00	2,221	222 10	400	800 00	4,489 10
General Hospital	Sioux Lookout	3,083	1,541 50	101	10 10	.....	.....	1,551 60
Public Hospital	Smith's Falls	5,034	2,517 00	529	52 90	.....	.....	2,569 90
St. Francis' Hospital	"	3,440	1,720 00	149	14 90	.....	.....	1,734 90
General Hospital	Stratford	6,513	3,256 50	356	35 60	.....	.....	3,292 10
General Hospital	Strathroy	4,976	2,488 00	279	27 90	.....	.....	2,515 90
St. Joseph's Hospital	Sudbury	19,781	9,890 50	1,522	152 20	2,360	4,720 00	14,762 70
General Hospital	Toronto	128,412	64,206 00	11,013	1,101 30	1,344	2,688 00	67,995 30
Grace Hospital	"	21,235	10,617 50	1,071	107 10	.....	.....	10,724 60
Hospital for Sick Children	"	73,526	36,763 00	11,253	1,125 30	1,596	3,192 00	41,080 30
Orthopedic Hospital	"	2,227	1,113 50	1,082	108 20	.....	.....	1,221 70
St. John's Hospital	"	14,105	7,052 50	3,257	325 70	.....	.....	7,378 20
St. Joseph's Hospital	"	23,874	11,937 00	693	69 30	.....	.....	12,006 30
St. Michael's Hospital	"	62,284	31,142 00	4,829	482 90	282	564 00	32,188 90
Salvation Army Women's Hospital	"	6,379	3,189 50	24	2 40	.....	.....	3,191 90
Wellesley Hospital	"	493	246 50	.....	.....	.....	.....	246 50
Western Hospital	"	35,248	17,624 00	1,198	119 80	.....	.....	17,743 80
Women's College Hospital	"	13,551	6,775 50	49	4 90	.....	.....	6,780 40
Home for Incurable Children	"	11,227	5,613 50	.....	.....	.....	.....	5,613 50
Toronto Hospital for Incurables	"	80,690	40,345 00	.....	.....	.....	.....	40,345 00
General Hospital	Walkerton	1,083	541 50	7	70	.....	.....	542 20
General Hospital	Welland	5,317	2,658 50	156	15 60	.....	.....	2,674 10
Grace Hospital	Windsor	14,379	7,189 50	64	6 40	.....	.....	7,195 90

Hotel Dieu Hospital	"	14,389	7,194 50	446	44 60	.....	.....	7,239 10
General Hospital	Wingham	272	136 00	.....	.....	.....	.....	136 00
General Hospital	Woodstock	2,972	1,486 00	43	4 30	.....	.....	1,490 30
Totals for 1923	.....	1,214,730	607,365 00	108,298	10,829 80	11,377	22,754 00	640,948 80
Totals for 1922	.....	1,163,351	581,675 50	101,248	10,124 80	1,324	2,648 00	616,303 30

Sanatoria.	Location	Collective days' stay of patients	Amount of grant to each institution at the rate of 75 cents per day
Brant Sanatorium	Brantford	12,914	$9,685 50
Muskoka Hospital for Consumptives	Gravenhurst	86,215	64,661 25
Mountain Sanatorium	Hamilton	71,229	53,421 75
Freeport Sanatorium	Kitchener	16,287	12,215 25
Queen Alexandra Sanatorium	London	37,976	28,482 00
Royal Sanatorium	Ottawa	24,480	18,360 00
Consumptive Sanatorium	St. Catharines	4,385	3,288 75
The Preventorium	Toronto	24,776	18,582 00
Toronto Hospital for Consumptives	Weston	117,137	87,852 75
Queen Mary Hospital for Children			
Totals for 1923	.....	395,399	$296,549 25
Totals for 1922	.....	383,393	287,544 75

TABLE VI.—Showing the cost of maintaining the Hospitals, also average daily cost per patient, etc.

Hospital.	Location.	Collective days' stay, exclusive of infants under one year of age.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding and all other expenditure on maintenance account.	Total expenditure for maintenance.	Average cost of each patient per day.	Average cost of dietary of each patient per day.
			$ c.	$ c.	$ c.	$ c.	$ c.
Rosamond Memorial Hospital	Almonte	2,199	1,610 80	8,339 27	9,950 07	4 58	73
Royal Victoria Hospital	Barrie	15,121	8,794 44	25,060 87	33,855 31	2 24	56
General Hospital	Belleville	17,363	12,388 88	36,963 93	49,352 81	2 84	71
General Hospital	Bowmanville	4,823	3,126 66	11,135 65	14,262 31	2 95	64
General Hospital	Brantford	33,604	22,107 11	89,316 83	111,423 94	3 01	63
Brant Sanatorium	"	12,914	6,554 68	24,737 50	31,292 18	2 42	50
General Hospital	Brockville	15,182	19,397 08	35,356 18	54,753 26	3 66	1 26
St. Vincent de Paul Hospital	"	16,566	16,332 23	36,975 61	53,307 84	3 82	98
General Hospital	Chatham	12,859	12,440 40	39,065 82	51,506 22	4 00	96
St. Joseph's Hospital	"	11,115	11,618 36	21,313 96	32,932 32	2 96	1 04
Lady Minto Hospital	Chapleau	3,647	2,408 09	7,593 27	10,001 36	2 74	66
Public Hospital	Clinton	1,247	1,593 31	5,642 82	7,236 13	5 80	1 28
Cobalt Mines Hospital	Cobalt	7,243	5,069 57	19,073 97	24,143 54	3 33	69
Cottage Hospital	Cobourg	4,558	3,393 09	14,021 00	17,414 09	3 82	74
Lady Minto Hospital	Cochrane	6,811	3,709 30	12,566 18	16,275 48	2 39	54
General and Marine Hospital	Collingwood	11,406	6,609 50	20,986 35	27,595 85	2 42	58
General Hospital	Cornwall	9,908	6,605 84	27,558 39	34,164 23	3 44	66
Hotel Dieu Hospital	"	16,207	10,953 06	22,752 66	33,705 72	2 08	67
Haldimand Co. War Mem. Hospital	Dunnville	1,930	1,822 29	13,047 78	14,870 07	7 70	94
Red Cross Memorial Hospital	Durham	1,189	439 10	3,132 21	3,571 31	3 00	37
Royal Alexandra Hospital	Fergus	4,733	3,415 60	10,260 80	13,676 40	2 88	72
McKellar General Hospital	Fort William	32,254	23,741 72	86,441 24	110,182 96	3 42	73
General Hospital	Galt	17,037	14,605 17	32,840 80	47,445 97	2 78	85
General and Marine Hospital	Goderich	2,798	2,299 43	6,499 63	8,799 06	3 15	82
Muskoka Cottage Sanatorium	Gravenhurst	10,592	27,740 66	29,351 62	57,092 28	5 39	2 62
Muskoka Hosp. for Consumptives	"	86,215	66,737 32	188,965 60	255,702 92	2 97	77
General Hospital	Guelph	18,960	12,412 34	69,637 48	82,049 82	4 32	65
St. Joseph's Hospital	"	15,347	10,609 52	22,073 91	32,683 43	2 13	69
City Hospital	Hamilton	128,298	89,897 80	304,358 73	394,256 53	3 07	70
St. Joseph's Hospital	"	35,409	31,888 38	78,199 41	110,087 79	3 10	90
Mountain Sanatorium	"	71,229	40,931 21	104,655 01	145,586 22	2 04	57
Hanover General Hospital	Hanover	89	.....	2,200 35	2,200 35	.....	.....
St. Paul's Hospital	Hearst	415	316 68	305 00	621 68	1 49	78
General Hospital	Ingersoll	2,759	2,603 85	8,832 73	11,436 58	4 14	94
General Hospital	Kenora	7,627	3,834 42	12,225 56	16,059 98	2 10	50
St. Joseph's Hospital	"	4,272	3,153 69	6,143 33	9,297 02	2 17	73
General Hospital	Kincardine	2,961	949 79	6,932 98	7,882 77	2 66	32
General Hospital	Kingston	54,535	46,008 90	90,844 93	136,853 83	2 51	83
Hotel Dieu Hospital	"	34,634	29,915 71	56,491 63	86,407 34	2 47	86
Kitchener and Waterloo Hospital	Kitchener	13,198	12,153 36	39,237 26	51,390 62	3 89	92
Freeport Sanatorium	"	16,287	10,147 14	29,784 83	39,931 97	2 45	62
Ross Memorial Hospital	Lindsay	8,447	5,888 17	23,897 00	29,785 17	3 52	69
Listowel Memorial Hospital	Listowel	2,012	1,994 63	11,686 41	13,681 04	6 79	98
General Hospital	London	83,405	85,915 09	265,007 32	350,922 41	4 20	1 03
St. Joseph's Hospital	"	31,375	37,191 89	63,355 97	100,547 86	3 20	1 12
Bethesda Hospital	"	5,842	7,371 47	27,541 85	34,913 32	5 97	1 26
Queen Alexandra Sanatorium	" *	161,042	74,702 71	206,381 00	281,083 71	1 75	46
Victoria Home for Incurables	"	25,410	7,575 49	23,691 18	31,266 67	1 23	29
Rosedale War Memorial Hospital	Matheson	1,228	959 38	4,444 54	5,403 92	4 40	78
General Hospital	Mattawa	6,823	3,040 04	11,567 12	14,607 16	2 12	44
General Hospital	Midland	6,787	3,108 54	15,776 08	18,884 62	2 78	45
Mount Forest General Hospital	Mount Forest	1,909	943 31	8,003 23	8,946 54	4 69	49
Lady Minto Hospital	New Liskeard	5,822	4,732 81	10,821 72	15,554 53	2 66	81
York County Hospital	Newmarket	2,146	1,803 77	5,241 40	7,045 17	3 23	84
General Hospital	Niagara Falls	14,875	14,268 84	36,090 64	50,359 48	3 38	96
Cottage Hospital	Niag.-on-Lake	1,176	1,137 08	4,948 67	6,085 75	5 17	97
Queen Victoria Hospital	North Bay	8,420	6,176 00	20,621 04	26,797 04	3 17	73
General Hospital	Orangeville	2,765	2,974 70	8,465 24	11,439 94	4 13	1 07
General Hospital	Orillia	13,705	8,561 41	31,214 22	39,775 63	2 90	62
General Hospital	Oshawa	12,910	10,529 80	42,602 49	53,132 29	4 11	81
General Protestant Hospital	Ottawa	51,491	36,172 33	126,064 48	162,236 81	3 13	70
Roman Catholic Hospital	"	58,595	32,760 94	122,315 09	155,076 03	2 64	56
Maternity Hospital	"	5,015	5,733 71	21,667 09	27,400 80	5 46	1 70
Misericordia Maternity Hospital	"	20,331	9,946 78	18,847 47	28,794 25	1 42	49
St. Luke's General Hospital	"	45,040	44,440 73	108,142 14	152,582 87	3 38	99
Protestant Infants' Hospital	"	6,227	2,857 44	12,886 63	15,744 07	2 52	46
Salvation Army Maternity Hosp	"	8,406	8,818 33	30,551 08	39,369 41	4 68	1 06
Royal Sanatorium	"	24,480	9,148 49	48,177 52	57,326 01	2 34	41
Perley Home for Incurables	"	18,838	5,728 69	16,380 24	22,108 93	1 17	30
General and Marine Hospital	Owen Sound	11,133	10,248 29	22,257 96	32,506 25	2 92	92
Willett Hospital	Paris	3,266	1,487 09	8,842 87	10,329 96	3 16	44
John R. Stone Memorial Hospital	Parry Sound	2,740	3,117 19	13,732 34	16,849 53	6 18	1 13
St. Joseph's Hospital	"	3,401	2,041 78	5,462 60	7,504 38	2 20	60
Cottage Hospital	Pembroke	6,544	4,247 41	12,832 66	17,080 07	2 60	64
General Hospital	"	23,732	10,735 58	33,479 56	44,215 14	1 86	45
General Hospital	Penetang'shene	1,283	1,892 76	5,416 45	7,309 21	5 82	1 47

*This includes military patients.

TABLE VI.—Showing the cost of maintaining the Hospitals, also average daily cost per patient, etc.—*Concluded.*

Hospital.	Location.	Collective days' stay, exclusive of infants under one year of age.	Cost of dietaries.	Salaries, fuel, light, medicine, bedding and all other expenditure on maintenance account.	Total expenditure for maintenance.	Average cost of each patient per day.	Average cost of dietary of each patient per day.
Great War Memorial Hospital	Perth	2,310	1,609 74	8,254 85	9,864 59	4 27	69
Nicholls Hospital	Peterborough	14,994	13,070 82	56,148 85	69,219 67	4 61	87
St. Joseph's Hospital	"	11,680	5,494 40	18,118 03	23,612 43	2 02	47
C. E. Englehart Hospital	Petrolia	4,670	3,123 44	15,090 36	18,213 80	3 90	67
Prince Edward County Hospital	Picton	1,659	1,842 15	7,887 84	9,729 99	5 86	1 11
General Hospital	Port Arthur	11,078	7,769 55	27,420 95	35,190 50	3 17	70
St. Joseph's Hospital	"	16,200	13,267 42	28,498 39	41,765 81	2 57	81
General Hospital	Port Hope	3,900	2,602 99	11,430 65	14,033 64	3 59	66
Victoria General Hospital	Renfrew	5,619	3,832 69	11,178 63	15,011 32	2 67	68
General and Marine Hospital	St. Catharines	16,539	16,509 26	53,777 63	70,286 89	4 25	91
Consumptive Sanatorium	"	4,385	2,800 01	8,765 03	11,565 04	2 63	63
Amasa Wood Hospital	St. Thomas	9,586	9,409 29	24,393 34	33,802 63	3 52	98
General Hospital	Sarnia	12,368	9,146 19	31,890 31	41,036 50	3 31	73
Plummer Memorial Hospital	Sault Ste. Marie	6,209	4,206 25	14,079 56	18,285 81	2 93	69
General Hospital	"	14,445	9,576 11	23,169 79	32,745 90	2 20	66
General Hospital	Sioux Lookout	3,184	2,380 31	5,615 62	7,995 93	2 54	75
Public Hospital	Smith's Falls	8,879	6,537 01	20,953 87	27,490 88	3 09	73
St. Francis' Hospital	"	7,056	8,155 99	15,139 27	23,295 26	3 21	1 15
General Hospital	Stratford	14,295	12,645 00	40,977 33	53,622 33	4 03	88
General Hospital	Strathroy	5,255	3,718 44	13,221 40	16,939 84	3 22	70
St. Joseph's Hospital	Sudbury	29,655	20,059 85	41,608 60	61,668 45	2 07	67
General Hospital	Toronto	208,613	209,069 65	772,571 39	981,641 04	4 70	1 00
Grace Hospital	"	35,899	33,214 05	134,527 14	167,741 19	4 64	92
Hospital for Sick Children	"	91,706	51,086 25	307,630 48	358,716 73	3 91	55
Orthopedic Hospital	"	8,322	7,131 57	20,242 95	27,374 52	3 29	85
St. John's Hospital	"	17,362	21,450 58	46,458 51	67,909 09	3 89	1 23
St. Joseph's Hospital	"	24,567	19,106 73	61,322 50	80,429 23	3 23	77
St. Michael's Hospital	"	87,606	84,034 21	229,065 90	313,100 11	3 57	96
Salvation Army Women's Hospital	"	6,403	4,809 13	16,028 10	20,837 23	3 25	75
Wellesley Hospital	"	28,030	50,267 46	177,035 93	227,303 39	8 11	1 79
Western Hospital	"	56,696	50,412 58	179,029 76	229,442 34	4 04	88
Women's College Hospital	"	13,600	12,067 37	41,951 14	54,018 51	3 97	88
The Preventorium	"	24,776	9,668 96	37,850 20	47,519 16	1 90	39
Home for Incurable Children	"	11,227	4,146 67	15,648 58	19,795 25	1 76	37
Toronto Hospital for Incurables	"	80,690	45,009 26	132,134 40	177,143 66	2 18	55
General Hospital	Walkerton	2,534	2,040 92	11,011 19	13,052 11	5 10	80
General Hospital	Welland	8,976	7,189 53	22,890 41	30,079 94	3 38	80
Toronto Hosp. for Consumptives, King Edward Sanatorium, Queen Mary Hospital for Children	Weston	117,137	78,700 79	223,456 02	302,156 81	2 58	67
Grace Hospital	Windsor	14,443	13,265 39	50,625 50	63,890 89	4 42	91
Hotel Dieu Hospital	"	26,819	25,221 61	59,720 03	84,941 64	3 12	94
General Hospital	Wingham	2,638	1,886 64	10,374 55	12,261 19	4 64	70
General Hospital	Woodstock	9,032	8,087 26	21,058 97	29,146 23	3 22	89
Totals, 1923		2,533,204	1,954,212 67	6,137,590 33	8,091,803 00	3 19	77
Totals, 1922		2,451,247	1,922,999 72	5,609,668 32	7,532,668 04	3 07	78

TABLE VII.—Showing the proportion of maintenance of Hospitals paid by the Government.

Hospital.	Location.	Revenues on maintenance account, exclusive of Government grant.	Government grant in aid of maintenance.	Total revenue for maintenance.	Total expenditure for maintenance.	Percentage of Government grant to total expenditure for maintenance.
		$ c.	$ c.	$ c.	$ c.	
Rosamond Memorial Hospital	Almonte	9,399 20	657 00	10,056 20	9,950 07	6.6
Royal Victoria Hospital	Barrie	30,600 48	7,084 70	37,685 18	33,855 31	20.9
General Hospital	Belleville	60,653 14	1,567 50	62,220 64	49,352 81	3.2
General Hospital	Bowmanville	15,648 44	1,708 40	17,356 84	14,262 31	10.2
General Hospital	Brantford	100,176 51	12,306 40	112,482 91	111,423 94	11.0
Brant Sanatorium	"	19,668 68	11,623 50	31,292 18	31,292 18	37.0
General Hospital	Brockville	51,763 84	3,198 70	54,962 54	54,753 26	5.8
St. Vincent de Paul Hospital	"	49,530 45	3,746 70	53,277 15	53,307 84	7.0
General Hospital	Chatham	49,574 92	1,931 30	51,506 22	51,506 22	3.7
St. Joseph's Hospital	"	30,484 77	2,468 80	32,953 57	32,932 32	7.5
Lady Minto Hospital	Chapleau	11,176 13	1,821 00	12,997 13	10,001 36	18.2
Public Hospital	Clinton	5,870 59	637 00	6,507 59	7,236 13	8.8
Cobalt Mines Hospital	Cobalt	24,935 37	725 39	25,660 76	24,143 54	3.0
Cottage Hospital	Cobourg	16,058 14	1,124 00	17,182 14	17,414 09	6.4
Lady Minto Hospital	Cochrane	14,302 14	4,385 60	18,687 74	16,275 48	27.0
General and Marine Hospital	Collingwood	24,653 90	2,500 80	27,154 70	27,595 85	9.0
General Hospital	Cornwall	45,562 95	2,317 10	47,880 05	34,164 23	6.8
Hotel Dieu Hospital	"	27,171 00	6,658 20	33,829 20	33,705 72	19.7
Haldimand Co. War Memorial Hosp	Dunnville	13,865 87	1,004 20	14,870 07	14,870 07	6.7
Red Cross Memorial Hospital	Durham	3,812 00	.....	3,812 00	3,571 31	...
Royal Alexandra Hospital	Fergus	12,720 51	599 00	13,319 51	13,676 40	4.3
McKellar General Hospital	Fort William	98,272 92	12,964 70	111,237 62	110,182 96	11.7
General Hospital	Galt	48,413 70	3,970 70	52,384 40	47,445 97	8.4
General and Marine Hospital	Goderich	10,303 03	225 00	10,528 03	8,799 06	2.5
Muskoka Cottage Sanatorium	Gravenhurst	51,519 66	.....	51,519 66	57,092 28	....
Muskoka Hosp. for Consumptives	"	190,286 77	63,657 00	253,943 77	255,702 92	24.9
General Hospital	Guelph	76,624 55	5,335 20	81,959 75	82,049 82	6.5
St. Joseph's Hospital	"	28,095 06	4,752 20	32,847 26	32,683 43	14.1
City Hospital	Hamilton	322,567 08	47,622 50	370,189 58	394,358 53	12.1
St. Joseph's Hospital	"	103,031 25	8,661 50	111,692 75	110,087 79	7.9
Mountain Sanatorium	"	93,616 87	53,422 50	147,039 37	145,586 22	36.7
Hanover General Hospital	Hanover	971 13	.....	971 13	2,200 35	....
St. Paul's Hospital	Hearst	988 20	.....	988 20	621 68	....
General Hospital	Ingersoll	10,721 56	488 50	11,210 06	11,436 58	4.3
General Hospital	Kenora	13,130 53	2,954 70	16,085 23	16,059 98	18.4
St. Joseph's Hospital	"	10,270 13	1,932 10	12,202 23	9,297 02	20.8
General Hospital	Kincardine	5,526 37	307 50	5,833 87	7,882 77	3.9
General Hospital	Kingston	122,531 13	13,557 90	136,089 03	136,853 83	10.0
Hotel Dieu Hospital	"	68,702 54	12,798 70	81,501 24	86,407 34	14.8
Kitchener and Waterloo Hospital	Kitchener	69,207 66	2,400 80	71,608 46	51,390 62	4.7
Freeport Sanatorium	"	43,618 07	12,219 75	55,837 82	39,931 97	30.6
Ross Memorial Hospital	Lindsay	24,229 08	1,545 20	25,774 28	29,785 17	5.2
Listowel Memorial Hospital	Listowel	11,404 43	1,139 40	12,543 83	13,681 04	8.3
General Hospital	London	333,631 73	19,383 60	353,015 33	350,922 37	5.5
St. Joseph's Hospital	"	97,511 93	3,138 30	100,650 23	100,547 86	3.1
Bethesda Hospital	"	22,082 89	3,485 20	25,568 09	34,913 32	10.0
Queen Alexandra Sanatorium	"	234,796 79	28,497 75	263,294 54	281,083 71	10.1
Victoria Home for Incurables	"	33,350 94	12,737 00	46,087 94	31,266 67	40.8
Rosedale War Memorial Hospital	Matheson	6,232 49	286 00	6,518 49	5,403 92	5.3
General Hospital	Mattawa	11,656 14	2,469 30	14,125 44	14,607 16	16.9
General Hospital	Midland	17,670 59	1,595 40	19,265 99	18,884 62	8.4
Mount Forest General Hospital	Mount Forest	9,419 45	.....	9,419 45	8,946 54	....
Lady Minto Hospital	New Liskeard	16,345 51	438 50	16,784 01	15,554 53	2.8
York County Hospital	Newmarket	7,831 88	.....	7,831 88	7,045 17	....
General Hospital	Niagara Falls	45,184 56	4,531 60	49,716 16	50,359 48	9.0
Cottage Hospital	Niag.-on-Lake	5,638 12	703 50	6,341 62	6,085 75	11.5
Queen Victoria Hospital	North Bay	23,815 44	6,178 80	29,994 24	26,797 04	23.0
General Hospital	Orangeville	7,527 84	1,440 50	8,968 34	11,439 94	12.6
General Hospital	Orillia	33,200 48	3,263 90	37,464 38	39,775 63	8.2
General Hospital	Oshawa	52,076 70	2,713 30	54,790 00	53,132 29	5.0
General Protestant Hospital	Ottawa	154,147 18	10,214 50	164,361 68	162,236 81	6.3
Roman Catholic Hospital	"	168,618 66	18,503 80	187,122 46	155,076 03	11.9
Maternity Hospital	"	27,491 57	830 00	28,321 57	27,400 80	3.0
Misericordia Maternity Hospital	"	25,336 54	3,250 50	28,587 04	28,794 25	11.3
St. Luke's General Hospital	"	134,345 20	7,170 30	141,515 50	152,582 87	4.7
Protestant Infants' Hospital	"	18,647 31	766 55	19,413 86	15,744 07	4.9
Salvation Army Maternity Hospital	"	32,196 85	.....	32,196 85	39,369 41	....
Royal Sanatorium	"	35,082 51	22,243 50	57,326 01	57,326 01	38.8
Perley Home for Incurables	"	13,589 53	9,129 50	22,719 03	22,108 93	41.3
General and Marine Hospital	Owen Sound	32,690 05	2,015 00	34,705 05	32,506 25	6.2
Willett Hospital	Paris	10,330 37	137 50	10,467 87	10,329 96	1.3
John R. Stone Memorial Hospital	Parry Sound	6,907 36	1,428 00	8,335 36	16,894 53	8.4
St. Joseph's Hospital	"	6,056 12	2,354 00	8,410 12	7,504 38	31.4
Cottage Hospital	Pembroke	15,670 53	1,815 40	17,485 93	17,080 07	10.6

TABLE VII.—Showing the proportion of maintenance of Hospitals paid by the Government.—*Concluded.*

Hospital.	Location.	Revenues on maintenance account, exclusive of Government grant.	Government grant in aid of maintenance.	Total revenue for maintenance.	Total expenditure for maintenance.	Percentage of Government grant to total expenditure for maintenance.
		$ c.	$ c.	$ c.	$ c.	
General Hospital	Pembroke	35,657 33	7,870 80	43,528 13	44,215 14	17.8
General Hospital	Penetanguishene	6,842 27	576 50	7,418 77	7,309 21	7.9
Great War Memorial Hospital	Perth	6,790 87	.....	6,790 87	9,864 59	.....
Nicholls Hospital	Peterborough	65,002 64	2,977 40	67,980 04	69,219 67	4.3
St. Joseph's Hospital	"	20,494 66	3,108 60	23,603 26	23,612 43	13.2
C. E. Englehart Hospital	Petrolia	18,358 95	1,854 10	20,213 05	18,213 80	10.1
Prince Edward County Hospital	Picton	10,094 29	1,040 50	11,134 79	9,729 99	10.7
General Hospital	Port Arthur	33,125 32	2,447 30	35,572 62	35,190 50	7.0
St. Joseph's Hospital	"	42,604 41	4,430 60	47,035 01	41,765 81	10.6
General Hospital	Port Hope	11,900 18	2,450 10	14,350 28	14,033 64	17.5
Victoria General Hospital	Renfrew	14,884 57	1,752 00	16,636 57	15,011 32	11.7
General and Marine Hospital	St. Catharines	73,016 02	2,013 60	75,029 62	70,286 89	2.9
Consumptive Sanatorium	"	7,996 90	3,938 25	11,935 15	11,565 04	34.0
Amasa Wood Hospital	St. Thomas	30,333 00	2,862 10	33,195 10	33,802 63	8.5
General Hospital	Sarnia	39,063 44	2,074 10	41,137 54	41,036 50	5.1
Plummer Memorial Hospital	Sault Ste. Marie	17,645 74	3,353 00	20,998 74	18,285 81	18.3
General Hospital	"	32,622 45	3,701 30	36,323 75	32,745 90	11.3
General Hospital	Sioux Lookout	6,384 89	.....	6,384 89	7,995 93	.....
Public Hospital	Smith's Falls	29,006 98	4,491 00	33,497 98	27,490 88	17.1
St. Francis Hospital	"	21,502 02	2,125 90	23,627 92	23,295 26	9.1
General Hospital	Stratford	49,351 65	2,442 80	51,794 45	57,684 47	4.2
General Hospital	Strathroy	17,026 63	2,012 70	19,039 33	16,939 84	11.9
St. Joseph's Hospital	Sudbury	62,407 11	12,948 64	75,355 75	61,668 45	21.0
General Hospital	Toronto	924,431 54	74,478 00	998,909 54	981,641 04	7.6
Grace Hospital	"	134,750 01	11,021 50	145,771 51	167 741 19	6.6
Hospital for Sick Children	"	256,651 75	44,544 50	301,196 25	358,716 73	12.4
Orthopedic Hospital	"	38,671 74	961 00	39,632 74	27,374 52	3.5
St. John's Hospital	"	65,100 73	6,514 70	71,615 43	67,909 09	9.3
St. Joseph's Hospital	"	63,756 60	11,206 30	74,962 90	80,429 23	13.9
St. Michael's Hospital	"	236,168 15	38,820 50	274,988 65	313,100 11	12.4
Salvation Army Women's Hospital	"	16,532 41	2,389 00	18,921 41	20,837 23	11.5
Wellesley Hospital	"	206,201 87	193 50	206,395 37	227,303 39	.....
Western Hospital	"	190,243 49	19,786 69	210,030 18	229,442 34	8.6
Women's College Hospital	"	51,324 11	6,420 20	57,744 31	54,018 51	11.9
The Preventorium	"	33,348 91	20,787 00	54,135 91	47,519 16	43.7
Home for Incurable Children	"	20,878 85	5,531 50	26,410 35	19,795 25	27.9
Toronto Hospital for Incurables	"	134,721 41	40,791 50	175,512 91	177,143 66	23.0
General Hospital	Walkerton	10,094 86	414 50	10,509 36	13,052 11	3.2
General Hospital	Welland	31,618 02	746 80	32,364 82	30,079 94	2.5
Toronto Hosp. for Consumptives King Edward Sanatorium Queen Mary Hospital for Children	Weston	212,261 99	89,919 00	302,180 99	302,156 81	26.4
Grace Hospital	Windsor	58,078 09	3,523 30	61,601 39	63,890 89	5.5
Hotel Dieu Hospital	"	77,075 32	7,442 10	84,517 42	84,941 64	8.8
General Hospital	Wingham	12,667 75	117 50	12,785 25	12,261 19	.....
General Hospital	Woodstock	31,712 58	1,602 70	33,315 28	29,146 23	5.5
Totals, 1923	.....	7,119,146 51	946,425 42	8,065,471 93	8,091,803 00	11.6
Totals, 1922	.....	6,735,177 69	889,936 47	7,625,114 16	7,532,668 04	10.0

TABLE VIII.—Showing the comparative cost per patient daily in the different Hospitals in periods of five years.

Hospitals	Location	1905	1910	1915	1920	1921	1922	1923
Victoria Hospital	Almonte	.....	1 23	2 50	3 80	4 46	4 22	4 58
Royal Victoria Hospital	Barrie	93	1 14	1 31	1 31	1 48	2 06	2 24
General Hospital	Belleville	1 63	1 09	1 21	2 47	3 28	3 11	2 84
General Hospital	Bowmanville	.....	.....	1 73	3 64	4 35	4 27	2 95
General Hospital	Brantford	78	1 19	1 75	2 84	2 79	2 72	3 01
Brant Sanatorium	"	.....	.....	1 90	2 54	2 49	2 42	2 42
General Hospital	Brockville	1 39	1 12	1 47	2 49	2 58	2 77	3 66
St. Vincent de Paul Hospital	"	87	1 16	1 48	2 16	3 18	2 22	3 82
Lady Minto Hospital	Chapleau	.....	.....	2 67	2 17	3 81	2 67	2 74
General Hospital	Chatham	87	1 00	1 61	2 81	4 01	3 46	4 00
St. Joseph's Hospital	"	72	82	1 52	2 71	2 67	2 77	2 96
General Hospital	Clinton	.....	.....	.....	3 85	4 62	4 29	5 80
Cobalt Mines Hospital	Cobalt	.....	.....	.....	.....	.....	.....	3 33
Cottage Hospital	Cobourg	.....	1 66	1 73	3 33	3 68	3 15	3 82
Lady Minto Hospital	Cochrane	.....	.....	.....	2 51	3 27	2 65	2 39
General and Marine Hospital	Collingwood	96	1 01	1 34	2 09	2 57	2 07	2 42
General Hospital	Cornwall	74	92	1 13	2 13	2 70	3 20	3 44
Hotel Dieu Hospital	"	53	75	96	2 08	2 06	1 92	2 08
Haldimand County Memorial Hospital	Dunnville	.....	.....	.....	5 65	5 60	7 30	7 70
Red Cross Memorial Hospital	Durham	.....	.....	.....	.....	.....	.....	3 00
Royal Alexandra Hospital	Fergus	.....	1 52	2 16	2 32	2 93	2 77	2 88
McKellar General Hospital	Fort William	1 08	1 66	1 90	3 02	3 60	3 03	3 42
General Hospital	Galt	1 12	1 55	1 49	2 27	3 25	2 82	2 78
General and Marine Hospital	Goderich	.....	1 73	2 05	3 54	2 59	5 59	3 15
Muskoka Cottage Sanatorium	Gravenhurst	2 05	1 89	4 74	5 22	4 65	4 43	5 39
Muskoka Hospital for Consumptives	"		1 14	1 62	2 91	3 53	2 71	2 97
General Hospital	Guelph	1 16	95	1 43	3 78	4 30	3 96	4 32
St. Joseph's Hospital	"	84	1 03	1 11	2 39	2 25	2 37	2 13
City Hospital	Hamilton	1 14	1 37	1 53	3 38	3 55	3 21	3 07
St. Joseph's Hospital	"	78	1 02	1 24	2 48	3 05	3 03	3 10
Mountain Sanatorium	"	.....	99	1 07	1 71	2 02	1 99	2 04
Hanover General Hospital	Hanover	.....	.....	.....	.....	.....	.....	.....
St. Paul's Hospital	Hearst	.....	.....	.....	.....	.....	.....	1 49
General Hospital	Ingersoll	.....	2 19	1 74	3 02	4 10	3 28	4 14
General Hospital	Kenora	1 46	2 16	1 16	2 27	4 27	1 96	2 10
St. Joseph's Hospital	"	2 26	1 19	1 43	1 30	1 27	1 65	2 17
General Hospital	Kincardine	.....	2 35	3 83	2 97	2 73	3 58	2 66
General Hospital	Kingston	79	96	1 41	2 11	2 66	2 57	2 51
Hotel Dieu Hospital	"	55	65	1 03	2 33	2 43	2 43	2 47
Essex Health Association	Kingsville	.....	.....	1 29	2 98	.....	.....	.....
Kitchener and Waterloo Hospital	Kitchener	1 64	1 64	1 53	2 99	4 64	4 14	3 89
Freeport Sanatorium	"	.....	.....	.....	.....	4 58	3 06	2 45
General Hospital	London	1 26	1 62	2 10	3 53	3 38	4 05	4 20
St. Joseph's Hospital	"	1 23	1 24	1 66	2 82	3 13	2 94	3 20
Queen Alexandra Sanatorium	"	.....	2 11	1 10	2 59	1 64	1 50	1 75
Victoria Home for Incurables	"	.....	.....	.....	1 09	1 12	1 19	1 23
Bethesda Hospital	"	.....	.....	.....	3 73	6 52	5 45	5 97
Ross Memorial Hospital	Lindsay	1 89	1 52	1 94	2 82	3 67	2 78	3 52
Listowel Memorial Hospital	Listowel	.....	.....	.....	3 87	4 25	3 12	6 79
Rosedale Memorial	Matheson	.....	.....	.....	.....	.....	5 20	4 40
General Hospital	Mattawa	96	91	61	1 10	2 01	1 85	2 12
General Hospital	Midland	2 10	1 74	1 56	2 93	3 30	2 39	2 78
Mount Forest General Hospital	Mount Forest	.....	.....	.....	.....	.....	.....	4 69
Lady Minto Hospital	New Liskeard	.....	1 29	1 59	2 16	4 65	2 90	2 66
York County Hospital	Newmarket	.....	.....	.....	.....	.....	.....	3 23
General Hospital	Niagara Falls	.....	1 54	2 01	3 32	4 02	3 06	3 38
Cottage Hospital	Niagara-on-the-Lake	.....	.....	.....	.....	3 20	4 01	5 17
Queen Victoria Hospital	North Bay	1 33	1 07	1 80	2 98	2 76	3 34	3 17
General Hospital	Orangeville	.....	.....	2 00	2 94	3 19	3 27	4 13
General Hospital	Orillia	.....	1 12	1 40	1 91	1 94	2 33	2 90
General Hospital	Oshawa	.....	8 23	1 46	2 39	4 06	3 21	4 11
General Protestant Hospital	Ottawa	1 29	1 28	1 76	3 14	3 22	3 42	3 13
Roman Catholic Hospital	"	81	1 02	1 04	2 21	2 85	2 46	2 64
Maternity Hospital	"	2 03	1 97	2 24	3 68	4 21	4 87	5 46
Misericordia Maternity Hospital	"	.....	.....	.....	1 35	1 61	1 67	1 42
Protestant Infants' Hospital	"	.....	.....	.....	.....	.....	7 90	2 52
Perley Home for Incurables	"	.....	.....	.....	1 09	97	1 05	1 17
Salvation Army Maternity Hospital	"	.....	.....	.....	.....	.....	.....	4 68
Royal Sanatorium	"	.....	1 84	1 49	2 41	2 71	2 45	2 34
St. Luke's General Hospital	"	87	1 62	1 73	2 77	3 07	4 41	3 38
General and Marine Hospital	Owen Sound	89	1 11	1 87	1 92	2 67	2 75	2 92
Willett Hospital	Paris	.....	.....	.....	.....	.....	5 90	3 16
General Hospital	Parry Sound	.....	1 61	1 58	2 34	2 77	3 27	6 18
St. Joseph's Hospital	"	.....	.....	.....	1 69	2 81	2 26	2 20
General Hospital	Pembroke	53	69	97	1 48	2 68	1 80	1 86
The Cottage Hospital	"	97	1 12	2 00	2 80	1 59	2 63	2 60
General Hospital	Penetanguishene	.....	.....	2 47	4 29	5 35	4 79	5 82
Great War Memorial Hospital	Perth	.....	.....	.....	.....	.....	.....	4 27
Nicholls Hospital	Peterborough	1 95	1 73	1 90	3 17	3 78	3 57	4 61
St. Joseph's Hospital	"	47	94	1 39	2 22	2 21	2 34	2 02
C. E. Englehart Hospital	Petrolia	.....	.....	2 25	3 16	3 00	5 21	3 90

TABLE VIII.—Showing the comparative cost per patient daily in the different Hospitals in periods of five years.—*Concluded.*

Hospitals	Location	1905	1910	1915	1920	1921	1922	1923
Prince Edward County Hospital	Picton	.....	.....	.....	4 39	6 58	5 40	5 86
Railway, Marine and General Hospital	Port Arthur	.....	1 84	1 70	2 69	3 31	3 45	3 17
St. Joseph's Hospital	"	1 09	1 35	1 20	2 63	3 03	2 31	2 57
General Hospital	Port Hope	.....	.....	2 21	3 03	3 64	2 53	3 59
Victoria General Hospital	Renfrew	1 49	1 11	1 30	2 41	2 98	2 41	2 67
General and Marine Hospital	St. Catharines	1 08	1 30	1 44	3 32	3 27	3 26	4 25
Consumptive Sanatorium	"	.....	1 14	96	3 14	1 75	2 29	2 63
Amasa Wood Hospital	St. Thomas	1 92	1 97	2 15	2 67	3 79	3 18	3 52
General Hospital	Sarnia	1 63	1 59	1 28	3 65	4 60	3 43	3 31
General Hospital	Sault Ste. Marie	90	1 14	1 81	1 74	2 85	2 14	2 20
Plummer Memorial Hospital	"	.....	.....	.....	4 98	2 54	2 94	2 93
General Hospital	Sioux Lookout	.....	.....	.....	.....	.....	.....	2 54
Public Hospital	Smith's Falls	.....	.....	2 04	3 76	3 48	2 89	3 09
St. Francis' Hospital	"	78	72	37	2 41	2 71	2 25	3 21
General Hospital	Stratford	1 17	1 28	1 81	3 70	3 80	3 47	4 03
General Hospital	Strathroy	.....	.....	1 77	4 45	3 13	5 08	4 22
St. Joseph's Hospital	Sudbury	1 08	1 06	1 23	2 13	2 08	1 99	2 07
General Hospital	Toronto	1 28	1 41	2 04	4 74	4 80	4 81	4 70
Grace Hospital	"	1 00	1 39	1 81	4 09	4 80	4 48	4 64
Hospital for Sick Children	"	1 25	1 53	2 26	4 22	4 12	3 96	3 91
Orthopedic Hospital	"	1 10	1 39	1 64	3 07	4 62	4 49	3 29
The Preventorium	"	.....	.....	75	1 52	1 40	1 48	1 90
St. John's Hospital	"	.....	.....	.....	4 26	5 20	4 58	3 89
St. Joseph's Hospital	"	.....	.....	.....	.....	.....	4 20	3 23
St. Michael's Hospital	"	90	1 00	1 60	2 56	3 39	3 14	3 57
Toronto Hospital for Incurables	"	.....	.....	.....	1 95	2 18	2 18	2 18
Salvation Army Women's Hospital	"	.....	.....	.....	1 28	1 14	4 05	3 25
Wellesley Hospital	"	.....	.....	.....	6 89	7 05	7 83	8 11
Western Hospital	"	92	1 02	1 53	3 43	3 73	3 67	4 04
Woman's College Hospital	"	.....	.....	.....	3 62	3 93	4 16	3 97
Home for Incurable Children	"	.....	.....	.....	1 71	2 90	1 70	1 76
General Hospital	Walkerton	2 66	2 27	1 58	1 74	4 69	5 01	5 10
General Hospital	Welland	.....	1 82	1 27	3 23	4 47	3 83	3 38
Toronto Hospital for Consumptives	Weston	1 53	1 35					
King Edward Sanatorium	"	.....	1 47	1 64	2 94	2 92	2 40	2 58
Queen Mary Hospital for Children	"	.....	.....					
Hotel Dieu Hospital	Windsor	76	1 04	1 76	2 46	3 21	2 83	3 12
Grace Hospital	"	.....	.....	.....	.....	4 73	5 01	4 42
General Hospital	Wingham	.....	1 79	2 28	4 26	3 95	4 49	4 64
General Hospital	Woodstock	1 87	1 34	1 42	3 47	3 01	3 77	3 22
Averages	.....	1 13	1 26	1 64	2 99	3 22	3 07	3 19

SEPARATE REPORTS

VICTORIA HOSPITAL, ALMONTE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	12
Admitted	223
Births in Hospital	44
Total number under treatment	279
Discharged	246
Died	21
Under treatment, 30th September, 1923	12
	279

Sex.

Male	109
Female	170
	279

Revenue.

From the Province of Ontario	$657 00
From the Town of Almonte	300 00
From the County of Lanark	100 00
From other municipalities	160 00
From endowments, investments, etc.	683 23
From patients themselves for maintenance and treatment	5,922 05
From subscriptions, donations and bequests from private individuals	2,100 41
From other sources	133 51
Total	$10,056 20

Expenditures.

Butchers' meat	$294 05
Butter and eggs	406 61
Flour, bread and meal	113 22
Milk	288 00
Tea and coffee	54 65
Potatoes and other vegetables	22 95
Groceries and provisions not enumerated	431 32
Drugs and medicines	329 26
Medical and surgical appliances	293 83
Beer, wine and spirits	69 97
Bedding, napery and general house furnishings	....
Brooms, brushes, mops, soap and cleaning appliances	8 68
Fuel	1,111 34
Electric light, gas, oil and candles	168 99
Salaries and wages	4,230 60
Taxes, insurance and interest	142 50
Contingencies	172 89
Repairs, ordinary	185 50
Ice and water supply	196 42
Printing, stationery, etc.	202 80
Bank overdraft, 1922	1,226 49
Total	$9,950 07
Government grant for 1923	$598 50

ROYAL VICTORIA HOSPITAL, BARRIE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	34
Admitted	760
Births in Hospital	98
Total number under treatment	892
Discharged	821
Died	35
Under treatment, 30th September, 1923	36
	892

Sex.

Male	373
Female	519
	892

Revenue.

From the Province of Ontario	$7,084 70
From the Town of Barrie	598 25
From the County of Simcoe	708 75
From other municipalities	....
From patients for maintenance	24,238 20
From endowments, investments, etc.	834 19
From subscriptions, donations and bequests from private individuals	327 74
From other sources	3,893 35
Total	$37,685 18

Expenditures.

Butchers' meat	$1,649 63
Butter and eggs	1,544 52
Flour, bread and meal	806 75

ROYAL VICTORIA HOSPITAL, BARRIE.—*Continued.*

Milk	1,227 51
Tea and coffee	....
Potatoes and other vegetables	1,240 31
Groceries and provisions not enumerated	2,325 99
Drugs and medicines	590 54
Medical and surgical appliances	2,833 01
Beer, wine and spirits	....
Bedding, napery and general house furnishings	1,416 22
Brooms, brushes, mops, soap and cleaning appliances	725 56
Fuel	4,204 55
Electric light, gas, oil and candles	710 38
Water	334 87
Ice supply	106 65
Salaries and wages	10,349 17
Electric power elevator	143 78
Contingencies	1,082 80
Repairs, ordinary	1,031 61
Taxes and insurance	220 45
X-Ray department	1,311 28
Clothing for patients	....
Total	$33,855 29
Government grant for 1923	$5,835 80

GENERAL HOSPITAL, BELLEVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	42
Admitted	1,455
Births in Hospital	157
Total number under treatment	1,654
Discharged	1,520
Died	89
Under treatment, 30th September, 1923	45
	1,654

Sex.

Male	670
Female	984
	1,654

Revenue.

From the Province of Ontario	$1,567 50
From the City of Belleville	11,841 50
From County of Hastings	1,600 00
From patients for maintenance and treatment	43,312 70
Income from endowments, investments, etc	214 84
From subscriptions, donations and bequests from private individuals	494 78
From other sources	3,189 32
Total	$62,220 64

Expenditures.

Butchers' meat	$2,630 80
Butter and eggs	2,030 99
Flour, bread and meal	1,292 89
Milk	1,293 28
Tea and coffee	511 51
Potatoes and other vegetables	560 41
Groceries and provisions not enumerated	3,569 00
Drugs and medicines	1,941 19
Medical and surgical appliances	3,541 71
Beer, wine and spirits	243 87
Bedding, napery and general house furnishings	1,659 77
Brooms, brushes, mops, soap and cleaning appliances	628 61
Fuel	6,355 37
Electric light, gas, oil and candles	1,376 47
Clothing for patients	....
Ice supply	263 00
Salaries and wages	18,565 35
Contingencies	1,099 06
Repairs, ordinary	1,303 67
Stationery and printing	388 55
Taxes, insurance and interest	1,102 70
Water supply	250 00
Surgical instruments	244 61
Total	$51,352 81
Government grant for 1923	$2,439 30

GENERAL HOSPITAL, BOWMANVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	18
Admitted	325
Births in Hospital	51
Total under treatment	394
Discharged	361
Died	24
Under treatment, 30th September, 1923	9
	394

Sex.

Male	138
Female	256
	394

Revenue.

From the Province of Ontario	$1,708 40
From Town of Bowmanville	500 00
From County of Durham	750 00
From patients for maintenance and treatment	14,021 29
From subscriptions, donations and bequests from private individuals	156 70
From all other sources	220 45
Total	$17,356 84

Expenditures.

Butchers' meat	$873 73
Butter and eggs	524 11
Flour, bread and meal	259 47
Milk	609 24
Tea and coffee	4 35
Potatoes and other vegetables	38 40
Groceries and provisions not enumerated	817 36
Drugs and medicines	575 18
Medical and surgical appliances	1,190 47
Surgical instruments	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	148 19
Brooms, brushes, mops, soap and cleaning appliances	55 12
Fuel	1,692 92
Light, gas, oil and candles	572 14
Ice supply	....
Salaries and wages	5,385 15
Stationery, printing, postage, etc.	77 80
Contingencies	296 91
Repairs, ordinary	572 92
Laundry	249 08
Taxes and insurance	319 67
Hay and straw	....
Water supply	100 00
Total	$14,362 31
Government grant for 1923	$2,275 90

GENERAL HOSPITAL, BRANTFORD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	102
Admitted	1,967
Births in the Hospital	286
Total number under treatment	2,355
Discharged	2,113
Died	144
Under treatment, 30th September, 1923	98
	2,355

Sex.

Male	973
Female	1,382
	2,355

Revenue.

From the Province of Ontario	$12,306 40
From the City of Brantford	37,000 00
From the County of Brant	4,516 31
From other municipalities	....
From patients for maintenance and treatment	46,832 06
Income from endowments, investments, etc.	180 00
From subscriptions, donations and bequests from private individuals	....
From all other sources	6,366 42
Bank overdraft, 1923	5,381 72
Total	$112,482 91

Expenditures.

Butchers' meat	$4,872 90
Butter and eggs	4,513 91
Flour, bread and meal	2,065 64
Milk	3,007 40
Tea and coffee	1,239 03
Potatoes and other vegetables	2,892 03
Groceries and provisions not enumerated	3,516 20
Drugs and medicines	4,649 42
Medical and surgical appliances and surgical instruments	8,225 62
Beer, wine and spirits	942 33
Bedding, napery and general house furnishings	5,542 15
Brooms, brushes, mops, soap and cleaning appliances	1,681 03
Fuel and power	11,071 97
Electric light, gas, oil, candles	1,237 90
Water supply	11 05
Salaries and wages	37,167 43
Taxes and insurance	1,557 68
Printing, stationery, etc.	860 74
Contingencies	4,260 72
Repairs, ordinary	5,676 22
Hay and straw	105 93
X-ray	4,453 53
Board of Health Department	500 00
Bank overdraft, 1923	1,273 11
Total	$111,423 94
Government grant for 1923	$11,309 50

GENERAL HOSPITAL, BROCKVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	43
Number admitted	895
Births in Hospital	81
Total number under treatment	1,019
Discharged	916
Died	59
Under treatment, 30th September, 1923	44
	1,019

Sex.

Male	432
Female	587
	1,019

Revenue.

From the Province of Ontario	$3,198 70
From the Town of Brockville	2,000 00
From the Counties of Leeds and Grenville	....
From other municipalities of the Province	....
From paying patients	35,665 14
From property belonging to the Hospital	1,635 69
From subscriptions, bequests and donations from private individuals	406 05
From other sources not enumerated	12,056 96
Total	$54,962 54

Expenditures.

Butchers' meat	$4,374 13
Butter and eggs	3,288 79
Flour, bread and meal	1,243 59
Milk	1,232 90
Tea and coffee	719 95
Potatoes and other vegetables	3,105 95
Groceries and provisions not enumerated	5,431 87
Drugs and medicines	2,731 22
Medical and surgical appliances	2,510 72
Bedding, napery and general house furnishings	656 24
Brooms, brushes, mops, soap and cleaning appliances	629 38
Fuel	4,312 55
Electric light, gas, oil, candles	1,819 01
Water supply	....
Ice supply	....
Salaries and wages	12,394 39
Taxes and insurance	401 83
Contingencies	5,397 71
Repairs, ordinary	2,313 73
Ambulance	118 00
Printing, stationery, etc	....
Laundry expenses	2,071 40
Total	$54,753 36

Government grant for 1923 ..... $2,954 00

ST. VINCENT DE PAUL HOSPITAL, BROCKVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	50
Admitted	1,050
Births in Hospital	62
Total number under treatment	1,162
Discharged	1,045
Died	55
Under treatment, 30th September, 1923	62
	1,162

Sex.

Male	387
Female	775
	1,162

Revenue.

From the Province of Ontario	$3,746 70
From the Town of Brockville	2,000 00
From other municipalities	57 50
From paying patients	29,483 31
From subscriptions, bequests and donations from private individuals	2,633 75
From other sources not enumerated	15,355 89
Total	$53,277 15

Expenditures.

Butchers' meat and fish	$5,529 49
Butter and eggs	3,170 16
Flour, bread and meal	885 22
Milk	2,381 35
Tea and coffee	830 84
Potatoes and other vegetables	1,480 29
Groceries and provisions not enumerated	2,054 88
Drugs and medicines	787 09
Medical and surgical appliances	1,227 39
Bedding, napery and general house furnishings	1,808 13

ST. VINCENT DE PAUL HOSPITAL.—*Continued.*

Brooms, brushes, mops, soap and cleaning appliances	1,005 27
Fuel	6,785 99
Electric light, gas, oil, candles	1,475 60
Water supply	39 60
Clothing for sisters, including boots and shoes	....
Ice supply	300 00
Salaries and wages	4,255 72
Taxes, insurance and interest	1,114 03
Contingencies	5,857 49
Repairs, ordinary	1,380 03
Printing, stationery, etc	662 19
Beer, wine and spirits	390 00
Addition to buildings	3,110 10
Interest	250 00
Accounts due, 1922	6,525 98
Total	$53,307 84
Government grant for 1923	$2,895 60

LADY MINTO HOSPITAL, CHAPLEAU.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	5
Admitted	288
Births in Hospital	31
Total number under treatment	324
Discharged	306
Died	13
Under treatment, 30th September, 1923	5
	324

Sex.

Male	223
Female	101
	324

Revenue.

From the Province of Ontario	$1,821 00
From the Town of Chapleau	300 00
From patients themselves for maintenance and treatment	6,709 70
From subscriptions, donations and bequests from private individuals	3,598 70
From other sources	567 73
Total	$12,997 13

Expenditures.

Butchers' meat and fish	$340 61
Butter and eggs	....
Milk	311 71
Tea and coffee	....
Potatoes and other vegetables	108 69
Groceries and provisions not enumerated	1,442 33
Flour, bread and meal	204 75
Drugs and medicines	510 26
Surgical and medical appliances	73 53
Beer, wine and spirits	23 00
Bedding, napery and general house furnishings	....
Fuel	1,410 20
Brooms, brushes, mops, soap and cleaning appliances	....
Electric light, gas, oil and power	159 63
Water supply	104 00
Ice	112 50
Salaries and wages	4,539 02
Taxes and insurance, telephone and power	393 27
Stationery, printing, etc	85 00
Contingencies	91 26
Repairs, ordinary	91 60
Total	$10,001 36
Government grant for 1923	$1,993 00

GENERAL HOSPITAL, CHATHAM.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	38
Admitted	938
Births in Hospital	86
Total number under treatment	1,062
Discharged	961
Died	66
Under treatment, 30th September, 1923	35
	1,062

Sex.

Male	472
Female	590
	1,062

Revenue.

From the Province of Ontario	$1,931 30
From the City of Chatham	2,052 50
From the County of Kent	2,000 00
From other municipalities of the Province	1,500 00
From patients themselves for maintenance and treatment	37,134 80

GENERAL HOSPITAL, CHATHAM.—*Continued.*

From subscriptions, donations and bequests from private individuals	1,745 20
From all other sources	5,142 42
Total	$51,506 22

Expenditures.

Butchers' meat	$2,636 27
Butter and eggs	653 86
Flour, bread and meal	760 62
Milk	1,890 40
Tea and coffee	....
Potatoes and other vegetables	1,307 18
Groceries and provisions not enumerated	5,192 07
Drugs and medicines	8-8 65
Surgical instruments	2,039 66
Beer, wine and spirits	....
Bedding, napery and general house furnishings	3,204 38
Brooms, brushes, mops, soap and cleaning appliances	....
Fuel	5,631 93
Electric light, gas, oil, candles	1,963 31
Ice	441 00
Salaries and wages	15,810 53
Insurance	178 00
Contingencies	3,253 62
Repairs, ordinary	1,795 66
Laundry	222 97
Water supply	....
Printing and postage	....
Grounds	207 00
Overdraft, 1922	3,459 11
Total	$51,506 22
Government grant for 1923	$2,933 70

ST. JOSEPH'S HOSPITAL, CHATHAM.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	33
Admitted	722
Births in Hospital	94
Total under treatment	849
Discharged	751
Died	64
Under treatment, 30th September, 1922	34
	849

Sex.

Male	322
Female	527
	849

Revenue.

From the Province of Ontario	$2,468 80
From the City of Chatham	2,436 16
From the County of Kent	2,406 00
From other municipalities	....
From patients for maintenance and treatment	25,123 54
From subscriptions, donations and bequests from private individuals	480 00
From other sources	39 07
Total	$32,953 57

Expenditures.

Butchers' meat	2,989 28
Butter and eggs	1,547 97
Flour, bread and meal	885 02
Milk	2,057 23
Tea and coffee	235 74
Potatoes and other vegetables	792 42
Groceries and provisions not enumerated	3,110 70
Drugs and medicines	542 21
Medical and surgical appliances	1,324 13
Beer, wine and spirits	31 27
Bedding, napery and general house furnishings	2,321 70
Brooms, brushes, mops, soap and cleaning appliances	636 09
Fuel	3,675 81
Light: electric, gas, oil, candles	669 21
Ice supply	500 50
Salaries and wages	5,720 61
Taxes, insurance and interest	825 00
Contingencies	464 79
Repairs, ordinary	4,278 08
Advertising, printing and postage	324 56
Total	$32,932 32
Government grant for 1923	$1,869 40

PUBLIC HOSPITAL, CLINTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	135
Births in Hospital	20
Total number under treatment	159
Discharged	148
Died	6
Under treatment, 30th September, 1923	5
Total	159

Sex.

Male	74
Female	85
	159

Revenue.

From the Province of Ontario	$637 00
From the Town of Clinton	....
From the County of Huron	500 00
From other municipalities	....
From endowments, investments, etc.	....
From patients themselves for maintenance and treatment	4,363 91
From subscriptions, donations and bequests from private individuals	18 50
From other sources	988 18
Total	$6,507 59

Expenditures.

Butchers' meat	$277 65
Butter and eggs	306 38
Flour, bread and meal	92 01
Milk	236 79
Tea and coffee	47 70
Potatoes and other vegetables	85 21
Groceries and provisions not enumerated	547 57
Drugs and medicines; Medical and surgical appliances	589 90
Beer, wine and spirits	....
Bedding, napery and general house furnishings	112 60
Brooms, brushes, mops, soap and cleaning appliances	63 74
Fuel	1,118 51
Electric light, gas, oil and candles	....
Salaries and wages	1,862 00
Taxes, insurance and interest	....
Contingencies	948 13
Repairs, ordinary	89 55
Ice	2 40
Printing, stationery, etc.	88 75
Laundry	474 27
Telephone	47 94
Equipment	245 03
Total	$7,236 13

Government grant for 1923 ..... $595 10

COBALT MINES HOSPITAL, COBALT.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	590
Births	23
Total number under treatment	617
Discharged	573
Died	22
Under treatment, 30th September, 1923	22
	617

Sex.

Male	396
Female	221
	617

Revenue.

From the Province of Ontario	....
From the Town of Cobalt	$3,000 00
From the Township of Coleman	1,000 00
Income from endowments and investments	....
From paying patients themselves	7,912 45
Subscriptions, donations and bequests	1,000 00
Received from other sources	12,022 92
Total	$24,935 37

Expenditures.

Butchers' meat; Butter and eggs; Flour, bread and meal; Milk; Tea and coffee; Potatoes and other vegetables; Groceries and other provisions not enumerated	5,069 57
Drugs and medicines; Medical and surgical appliances	1,881 47
Beer, wine and spirits	.....

COBALT MINES HOSPITAL, COBALT.—*Continued.*

Bedding, etc. / Brooms, brushes, mops, soap and cleaning appliances	421 77
Fuel	3,780 92
Electric light, gas, oil and candles	447 56
Ice	....
Salaries and wages	8,523 10
Insurance and taxes	861 35
Contingencies	....
Repairs, ordinary	544 81
Printing, stationery, etc.	....
Water supply	70 45
Laundry	719 55
Other expenses	909 24
X-ray department	913 75
Total	$24,143 54
Government grant for 1923	$3,517 90

COTTAGE HOSPITAL, COBOURG.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	22
Admitted	417
Births in Hospital	52
Total number under treatment	491
Discharged	446
Died	20
Under treatment, 30th September, 1923	25
	491

Sex.

Male	189
Female	302
	491

Revenue.

From the Province of Ontario	$1,124 00
From the Town of Cobourg	500 00
From the Counties of Northumberland and Durham	750 00
From other municipalities in the Province	275 00
From paying patients themselves	14,005 81
From endowments, investments, etc.	....
From subscriptions, donations, etc.	215 32
From other sources	312 01
Total	$17,182 14

Expenditures.

Butchers' meat and fish	$1,031 32
Butter and eggs	603 58
Flour, bread and meal	282 00
Milk	473 43
Tea and coffee	144 65
Potatoes and other vegetables	114 20
Groceries and provisions not enumerated	743 91
Drugs and medicines	261 62
Medical and surgical appliances	1,245 00
Bedding, napery and general house furnishings	2,013 22
Brooms, brushes, mops, soap and cleaning appliances	107 31
Fuel	1,184 60
Water	176 07
Electric light, gas, oil	571 29
Salaries and wages	6,137 89
Contingencies	1,689 09
Repairs, ordinary	212 53
Printing, stationery, postage, etc.	304 85
Ice	66 63
Insurance and taxes	45 00
Clothing for patients	....
Wine and spirits	....
Total	$17,414 09
Government grant for 1923	$1,234 10

LADY MINTO HOSPITAL, COCHRANE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	20
Admitted	399
Births in Hospital	34
Total number under treatment.	453
Discharged	404
Died	21
Under treatment, 30th September, 1923	28
	453

Sex.

Male	310
Female	143
	453

Revenue.

From the Province of Ontario	$4,335 60
From the Town of Cochrane	235 60
From patients themselves for maintenance and treatment	10,621 81
From property belonging to Hospital, endowments, etc	....
From subscriptions, donations, and bequests from private individuals	812 23
From other sources	2,632 50
Total	$18,637 74

Expenditures.

Butchers' meat	749 95
Butter and eggs	601 77
Flour, bread and meal	335 87
Milk	507 90
Tea and coffee	127 00
Potatoes and other vegetables	264 77
Groceries and provisions not enumerated	1,122 04
Drugs and medicines	513 95
Surgical instruments and appliances	218 05
Beer, wine and spirits	....
Bedding, napery and general house furnishings	203 74
Brooms, brushes, mops, soap and cleaning appliances	134 98
Fuel	1,605 75
Electric light, gas, oil, candles	238 41
Laundry	1,177 59
Clothing for patients	....
Ice	15 00
Salaries and wages	7,349 80
Taxes and insurance	260 70
Nurses' Uniforms	20 92
Contingencies	57 33
Printing, stationery, etc	104 36
Repairs, ordinary	152 65
Telephone	70 75
Bank overdraft, 1922	423 48
Water	18 72
Total	$16,275 48
Government grant for 1923	$5,463 40

GENERAL AND MARINE HOSPITAL, COLLINGWOOD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	34
Admitted	567
Number of births in the Institution during the year	56
Total number under treatment.	657
Discharged	582
Died	40
Under treatment, 30th September, 1923	35
	657

Sex.

Male	252
Female	405
	657

Revenue.

Received from the Province of Ontario	$2,500 80
From the Town of Collingwood	1,500 00
From the County of Simcoe	1,000 00
From paying patients	21,013 41
Subscriptions, donations, etc	87 00
From sources not enumerated	1,053 49
Total	$27,154 70

Expenditures.

Butchers' meat	1,463 37
Butter and eggs	818 59
Flour, bread and meal	691 52
Milk	1,183 71
Tea and coffee	162 74
Potatoes and other vegetables	496 33
Groceries and provisions not enumerated	1,793 24
Drugs and medicines	1,580 11
Medical and surgical appliances	1,473 08
Beer, wine and spirits	285 52
Bedding, napery and general house furnishings	2,788 20
Brooms, brushes, mops, etc	338 52
Fuel	3,469 33
Electric light, gas, oil, candles	451 94
Water supply	89 21
Ice	150 00
Salaries and wages	7,907 00
Contingencies	577 13
Repairs, ordinary	1,026 06
Taxes and insurance	50 25
Extra additions	800 00
Total	$27,595 85
Government grant for 1923	$2,984 10

GENERAL HOSPITAL, CORNWALL.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Total under treatment, 1st October, 1922	27
Admitted	565
Births in Hospital	49
Total number under treatment	641
Discharged	580
Died	40
Under treatment, 30th September, 1923	21
	641

Sex.

Male	272
Female	369
	641

Revenue.

From the Province of Ontario	$2,317 10
From the Town of Cornwall	1,000 00
From the Counties of Stormont, Dundas, and Glengarry	1,500 00
From other municipalities in the Province	300 00
From paying patients themselves	18,989 11
From subscriptions, donations, etc	3,907 70
From other sources	16,184 24
Income from endowments	3,681 90
Total	$47,880 05

Expenditures.

Butchers' meat and fish	$1,608 87
Butter and eggs	1,185 31
Flour, bread and meal	390 47
Milk	981 72
Tea and coffee	170 55
Potatoes and other vegetables	239 69
Groceries and provisions not enumerated	2,029 23
Drugs and medicines	961 45
Medical and surgical appliances	7,079 87
Surgical instruments	163 97
Beer, wine and spirits	6 25
Bedding, napery and general house furnishings	1,592 83
Brooms, brushes, mops, soap and cleaning appliances	218 61
Fuel	2,895 50
Electric light, gas, oil, candles	836 64
Salaries and wages	9,034 80
Laundry	2,176 07
Contingencies	373 16
Repairs, ordinary	665 61
Printing, stationery, postage, telephone, etc	577 18
Ice	178 80
Insurance and interest	400 38
Coffins and funerals	25 00
House furnishings	372 27
Total	$34,164 33
Government grant for 1923	$2,490 20

HOTEL DIEU HOSPITAL, CORNWALL.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	49
Admitted	1,331
Births in Hospital	107
Total number under treatment	1,487
Discharged	1,376
Died	72
Under treatment, 30th Septemper, 1923	39
	1,487

Sex.

Male	621
Female	866
	1,487

Revenue.

From the Province of Ontario	$6,658 20
From the Town of Cornwall	1,000 00
From the Counties of Stormont, Dundas, and Glengarry	1,500 00
From other municipalities in the Province	300 00
From paying patients themselves	18,060 80
From subscriptions, donations, etc	2,867 57
From other sources	3,442 63
Total	$33,829 20

Expenditures.

Butchers' meat and fish	$3,557 23
Butter and eggs	2,014 19
Flour, bread and meal	1,122 51
Milk	559 02
Tea and coffee	730 09
Potatoes and other vegetables	934 23
Groceries and provisions not enumerated	2,035 79
Drugs and medicines	1,231 27
Medical and surgical appliances	1,548 78
Surgical instruments	244 12
Beer, wine and spirits	....
Bedding, napery and general house furnishings	1,547 44
Brooms, brushes, mops, soap and cleaning appliances	640 26
Fuel	2,945 37
Electric light, gas, oil and candles	868 13
Ice	....
Salaries and wages	2,663 21
Taxes and insurance and interest	2,040 27
Contingencies	3,182 43
Repairs, ordinary	5,317 02
Clothing for patients	....
Hay and straw	....
Printing and postage	524 36
Total	$33,705 72
Government grant for 1923	$6,953 90

HALDIMAND WAR MEMORIAL HOSPITAL, DUNNVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	223
Births in Hospital	18
Total number under treatment	245
Discharged	217
Died	22
Under treatment, 30th September, 1923	6
	245

Sex.

Male	104
Female	141
	245

Revenue.

From the Province of Ontario	$1,004 20
From the Town of Dunnville	1,000 00
From the County of Haldimand	500 00
From other municipalities	....
From patients for maintenance	7,267 96
From endowments, investments, etc	....
From subscriptions, donations, and bequests from private individuals	20 00
From other sources	5,077 91
Total	$14,870 07

Expenditures.

Butchers' meat	475 04
Butter and eggs	252 65
Flour, bread and meal	166 04
Milk	191 75
Tea and coffee	105 38
Potatoes and other vegetables	216 77
Groceries and provisions not enumerated	414 66
Drugs and medicines	260 04
Medical and surgical appliances	580 27
Beer, wine and spirits	15 09
Bedding, napery and general house furnishings	525 58
Brooms, brushes, mops, soap and cleaning appliances and laundry	803 71
Fuel	379 37
Electric light, gas, oil and candles	119 06
Water	....
Ice supply	42 00
Salaries and wages	6,176 78
Contingencies	283 16
Repairs, ordinary	289 20
Taxes and insurance	185 91
Printing and postage	65 72
Rent and telephones	444 15
Bank loan paid off	2,877 74
Total	$14,870 07

Government grant for 1923..... $965 00

RED CROSS MEMORIAL HOSPITAL, DURHAM

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	.....
Admitted	96
Births in Hospital	15
Total number under treatment	111
Discharged	98
Died	7
Under treatment, 30th September, 1923	6
	111

Sex.

Male	35
Female	76
	111

Revenue.

From the Province of Ontario	.....
From the County of Grey	$1,000 00
From Town of Durham	.....
From patients themselves for maintenance and treatment	2,812 00
From endowments, investments, etc	.....
From subscriptions, donations and bequests from private individuals	.....
From other sources	.....
Total	$3,812 00

Expenditures.

Butchers' meat	$74 95
Butter and eggs	97 08
Flour, bread and meal	70 30
Milk	78 92
Tea and coffee	11 07
Potatoes and other vegetables	16 77
Groceries and provisions not enumerated	90 01
Drugs and medicines	80 84
Medical and surgical appliances	164 28
Surgical instruments	6 60
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	189 28
Brooms, brushes, mops, soap and cleaning appliances	41 33
Fuel	498 14
Electric light, gas, oil and candles	61 54
Water supply	39 20
Salaries and wages	1,579 00
Taxes and insurance	128 47
Hay and straw	.....
Contingencies	196 62
Repairs, ordinary	20 75
Ice supply	29 25
Printing, postage, etc	96 91
Total	$3,571 31

Government grant for 1923..... $578 50

ROYAL ALEXANDRA HOSPITAL, FERGUS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	19
Admitted	266
Births in Hospital	24
Total under treatment	285
Discharged	250
Died	13
Under treatment, 30th September, 1923	22
	285

Sex.

Male	113
Female	172
	285

Revenue.

From the Province of Ontario	$599 00
From the County of Wellington	1,246 25
From other municipalities	.....
From patients for maintenance and treatment	11,119 62
From subscriptions, donations, and bequests from private individuals	.....
From all other sources	354 64
Total	$13,319 51

Expenditures.

Butchers' meat	$746 34
Butter and eggs	582 50
Flour, bread and meal	373 96
Milk	468 24
Tea and coffee	123 90
Potatoes and other vegetables	606 08
Groceries and provisions not enumerated	514 58
Drugs and medicines	378 78
Medical and surgical appliances	335 07
Surgical instruments	122 69
Bedding, napery and general house furnishings	700 48
Brooms, brushes, mops, soap and cleaning appliances	140 45
Fuel	1,786 88
Electric light, gas, oil, candles	709 35
Ice supply	64 80
Salaries and wages	3,594 67
Water supply	61 38
Contingencies	85 22
Repairs, ordinary	380 25
Hay, straw and feed	230 55
Printing and stationery	173 90
Freight and express	397 57
Taxes and insurance	91 06
Telephone	133 84
Laundry	873 86
Total	$13,676 40
Government grant for 1923	$593 20

McKELLAR GENERAL HOSPITAL, FORT WILLIAM.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	107
Admitted	2,832
Number of births in Hospital	245
Total number under treatment	3,184
Discharged	2,975
Died	110
Under treatment, 30th September, 1923	99
	3,184

Sex.

Male	1,648
Female	1,536
	3,184

Revenue.

From the Province of Ontario	$12,964 70
From the Town of Fort William	26,619 39
From other municipalities	....
From paying patients	69,942 71
Subscriptions, donations, etc.	308 32
Other sources	1,402 50
Total	$111,237 62

Expenditures.

Butchers' meat	$4,182 84
Flour, bread and meal	1,758 12
Milk	3,109 03
Butter and eggs	4,759 87
Tea and coffee	844 14
Potatoes and other vegetables	2,545 38
Groceries and provisions not enumerated	5,279 91
Fish	801 43
Drugs and medicines	3,600 62
Medical and surgical appliances	6,732 63
Beer, wine and spirits	543 23
Bedding, napery and general house furnishings	.....
Brooms, brushes, mops, soap and cleaning appliances and laundry	.....
Fuel	11,410 42
Taxes, etc	955 33
Printing, stationery, etc	2,567 63
Salaries and wages	37,547 86
Contingencies	.....
Repairs, ordinary	6,646 74
Insurance	764 00
Water supply	580 45
Electric light, gas, oil, etc	522 14
X-Ray supplies	2,043 84
Ice	461 00
Debenture interest	8,675 00
Sundry expenses	3,851 35
Total	$110,182 96
Government grant for 1923	$10,651 90

GENERAL HOSPITAL, GALT.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	49
Admitted	1,129
Number of births in the Institution	185
Total number under treatment	1,363
Discharged	1,237
Died	77
Under treatment, 30th September, 1923	49
	1,363
Sex.	
Male	615
Female	748
	1,363
Revenue.	
From the Province of Ontario	$3,970 70
From the Town of Galt	7,000 00
From the County of Waterloo	3,500 00
From other municipalities	100 00
From paying patients themselves	36,255 74
Income from endowments, investments, etc.	512 50
From subscriptions, bequests and donations of private individuals	204 25
From other sources	841 21
Total	$52,384 40

Expenditures.	
Butchers' meat	$3,282 54
Butter and eggs	2,739 63
Flour bread and meal	988 66
Milk	1,901 28
Tea and coffee	610 68
Potatoes and other vegetables	493 85
Groceries and provisions not enumerated	4,588 53
Drugs and medicines	2,409 35
Medical and surgical appliances	3,104 41
Beer, wine and spirits	336 34
Bedding, napery and general house furnishings	348 00
Brooms, brushes, mops, soap and cleaning appliances	739 43
Fuel	5,662 21
Electric light, gas, oil, candles	1,033 79
Water supply	620 84
Ice	244 90
Salaries and wages	13,087 50
Taxes and insurance	418 82
Contingencies	1,340 06
Repairs, ordinary	1,360 50
Printing, stationery, etc.	474 22
Repairs and additions	.....
Hay and straw cultivating grounds	849 82
Bank overdraft	810 52
Total	$47,445 97
Government grant for 1923	$3,895 20

GENERAL AND MARINE HOSPITAL, GODERICH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	11
Admitted	189
Births in Hospital	50
Total number under treatment	250
Discharged	223
Died	15
Under treatment, 30th September, 1923	12
	250
Sex.	
Male	102
Female	148
	250
Revenue.	
From the Province of Ontario	$225 00
From the Town of Goderich	500 00
From the County of Huron	500 00
From other municipalities	....
From patients themselves for maintenance and treatment	6,725 72
From endowments, investments, etc.	59 50
From subscriptions, donations and bequests from private individuals	1,140 00
From other sources	1,377 81
Total	$10,528 03

Expenditures.	
Butchers' meat	$562 86
Butter and eggs	377 87
Flour, bread and meal	107 96
Milk	320 00
Tea and coffee	77 79
Potatoes and other vegetables	118 63
Groceries and provisions not enumerated	734 32
Drugs and medicines	196 60
Medical and surgical appliances	451 54
Beer, wine and spirits	214 83
Surgical instruments	.....
Bedding, napery and general house furnishings	288 69
Brooms, brushes, mops, soap and cleaning appliances	78 76

GENERAL AND MARINE HOSPITAL, GODERICH.—*Continued.*

Fuel	949 29
Electric light, gas, oil, candles	115 38
Water supply	19 55
Salaries and wages	3,411 81
Printing, stationery, etc	69 00
Insurance and rent	....
Ice supply	74 82
Contingencies	367 05
Repairs, ordinary	262 30
Telephone	....
Total	$8,799 06
Government grant for 1923	$583 50

GENERAL HOSPITAL, GUELPH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	67
Admitted	1,308
Births in Hospital	151
Total number under treatment	1,526
Discharged	1,386
Died	87
Under treatment 30th September, 1923	53
	1,526

Sex.

Male	690
Female	836
	1,526

Revenue.

Received from the Province of Ontario	$5,335 20
From the City of Guelph	19,303 05
From the County of Wellington	274 00
From other municipalities	....
From paying patients	49,018 94
Subscriptions, donations, etc	1,643 33
From other sources not enumerated	729 31
Overdraft 1923	5,655 92
Total	$81,959 75

Expenditures.

Butchers' meat	$3,962 86
Butter and eggs	2,719 59
Flour, bread and meal	1,422 60
Milk	28 24
Tea and coffee	456 69
Potatoes and other vegetables	755 12
Groceries and provisions not enumerated	3,067 24
Drugs and medicines, surgical instruments and appliances	1,870 45
Beer, wine and spirits	175 00
Bedding, napery and general house furnishings	2,168 40
Brooms, brushes, mops, etc	939 51
Fuel	6,360 96
Electric light, gas, oil, candles	2,179 53
Water supply	177 73
Surgical appliances	4,198 58
Hay and straw	1,659 71
Ice	141 30
Salaries and wages	20,208 36
Taxes, insurance and interest	2,608 08
Repairs, ordinary	3,339 83
Contingencies	3,562 74
Printing, stationery, etc	483 48
Clothing for patients	....
Telephone	516 50
Bank overdraft, 1922	19,047 32
Total	$82,049 82
Government aid for 1923	$4,965 00

ST. JOSEPH'S HOSPITAL, GUELPH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	41
Admitted	694
Births in Hospital	95
Total number under treatment	1,130
Discharged	1,032
Died	55
Under treatment, 30th September, 1923	43
	1,130

Sex.

Male	417
Female	713
	1,130

Revenue.

From the Province of Ontario	$4,752 20
From the City of Guelph	2,849 90
From the County of Wellington	1,078 00
From other municipalities of the Province	....
From paying patients	24,167 16
Subscriptions, donations, etc	....
Other sources	....
Total	$32,847 27

ST. JOSEPH'S HOSPITAL, GUELPH.—*Continued.*

Expenditures.

Butchers' meat and fish	$2,345 88
Butter and eggs	2,112 86
Flour, bread and meal	1,226 82
Milk	....
Tea and coffee	1,403 50
Potatoes and other vegetables	1,253 80
Groceries and provisions not enumerated	2,266 66
Drugs and medicines	888 46
Medical and surgical appliances	1,839 22
Surgical instruments	132 05
Beer, wine and spirits	246 83
Bedding, napery and general furnishings	2,101 09
Brooms, brushes, mops, soap and cleaning appliances	909 40
Fuel	4,160 13
Electric light, gas, oil, candles	974 96
Water supply	53 65
Salaries and wages	5,603 20
Taxes, interest and insurance	955 36
Contingencies	211 64
Repairs, ordinary	1,916 45
Ice supply	100 40
Printing, stationery, etc	396 88
Clothing for patients	711 27
Hay and straw, farm	872 92
Coffins and funerals	....
Total	$32,683 43

Government aid for 1923 ..... $5,669 30

CITY HOSPITAL, HAMILTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	362
Admitted	7,241
Births in Hospital	809
Total number under treatment	8,412
Discharged	7,610
Died	470
Under treatment, 30th September, 1923	332
	8,412

Sex.

Male	3,645
Female	4,767
	8,412

Revenue.

From the Province of Ontario	$47,622 50
From the City of Hamilton	144,707 97
From the County of Wentworth	....
From patients for maintenance and treatment	175,439 61
From other sources	....
" " municipalities	2,419 50
Total	$370,189 58

Expenditures.

Butchers' meat	$22,889 51
Butter and eggs	15,022 98
Flour, bread and meal	4,724 75
Milk	12,575 82
Tea and coffee	3,894 91
Potatoes and other vegetables	5,206 68
Groceries and provisions not enumerated	25,582 15
Drugs and medicines	6,209 85
Medical and surgical appliances	14,263 75
Surgical instruments	....
Beer, wine and spirits	981 60
Bedding, napery and general house furnishings	17,381 10
Brooms, brushes, mops, soap and cleaning appliances	4,612 70
Fuel	55,583 64
Electric light, gas, oil and candles	7,715 76
Water supply	5,807 32
Laboratory	6,707 09
Salaries and wages	154,999 15
Insurance and taxes	1,160 53
Contingencies	6,695 10
Repairs, ordinary	7,304 44
Clothing for patients	939 07
X-Ray	9,038 09
Merchandise, printing and postage	3,540 09
Hay and straw	....
Night watchmen, service	243 72
Telephones	1,278 73
Total	$394,358 53

Government grant for 1923 ..... $46,057 30

ST. JOSEPH'S HOSPITAL, HAMILTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	92
Admitted	2,891
Number of births	256
Total number under treatment	3,239
Discharged	2,996
Died	131
Under treatment, 30th September, 1923	112
	3,239

Sex.

Male	1,317
Female	1,922
	3,239

Revenue.

From the Province of Ontario	$8,661 50
From the City of Hamilton	7,636 50
Income from endowments, investments, etc.	....
From paying patients themselves	93,075 06
Subscriptions, donations and bequests in cash	....
From all other sources	2,319 69
Total	$111,692 75

Expenditures.

Butchers' meat and fish	$8,343 09
Butter and eggs	5,437 12
Flour, bread and meal	2,594 10
Milk	3,571 74
Tea and coffee	1,869 78
Potatoes and other vegetables	4,555 65
Groceries and other provisions not enumerated	5,516 90
Drugs and medicines	2,891 84
Medical and surgical appliances	5,422 58
Surgical instruments	1,021 06
Beer, wine and spirits	950 03
Bedding, etc.	11,942 88
Brooms, brushes, mops, soap and cleaning appliances	1,684 66
Fuel	6,550 20
Electric light, gas, oil and candles	3,046 49
Water supply	1,201 71
Clothing for patients, including boots and shoes	....
Ice supply	....
Salaries and wages	26,270 66
Insurance and rent	937 12
Contingencies	4,660 80
Repairs, ordinary	8,792 85
Printing, stationery, etc.	2,121 60
X-Ray	....
Telephones	704 93
Total	$110,087 79
Government grant for 1923	$9,986 40

MEMORIAL HOSPITAL, HANOVER.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	....
Admitted	18
Births in Hospital	4
Total number under treatment	22
Discharged	12
Died	2
Under treatment, 30th September, 1923	8
	22

Sex.

Male	9
Female	13
	22

Revenue.

From Government of Ontario	....
From Town of Hanover	....
From patients for maintenance and treatment	$251 50
From other municipalities	....
From subscriptions, bequests and donations of private individuals	594 20
From other sources	125 43
Income from endowments, etc.	....
Total	$971 13

Expenditures.

Butchers' meat, Butter and eggs, Flour, bread and meal, Milk, Tea and coffee, Potatoes and other vegetables, Groceries and provisions not enumerated	....
Drugs, medicines	17 45
Medical and surgical appliances and surgical instruments	634 90
Beer, wine and spirits	....
Bedding, napery and general house furnishings	742 98
Brooms, brushes, etc.	37 82
Fuel	....
Electric light, gas, oil, candles	30 35
Ice supply	....
Printing, stationery, etc.	51 26
Hay and straw	....
Farm and grounds	....
Salaries and wages	568 85
Taxes and insurances	6 55
Repairs, ordinary	....
Contingencies	110 19
Clothing for patients	....
Total	$2,200 35
Government grant for 1923	$44 50

This Hospital was opened on 23rd August, 1923.

ST. PAUL'S HOSPITAL, HEARST.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	....
Admitted	31
Births in Hospital	9
Total number under treatment	40
Discharged	37
Died	1
Under treatment, 30th September, 1923	2
	40

Sex.

Male	16
Female	24
	40

Revenue.

From the Province of Ontario	....
From the Town of	....
From the County of	....
From other municipalities in the Province	....
From paying patients themselves	541 50
From subscriptions, donations, etc.	....
From other sources	446 70
Total	$988 20

Expenditures.

Butchers' meat and fish	$58 74
Butter and eggs	45 65
Flour, bread and meal	18 76
Milk	56 50
Tea and coffee	12 00
Potatoes and other vegetables	25 00
Groceries and provisions not enumerated	100 03
Drugs and medicines	65 00
Medical and surgical appliances	....
Surgical instruments	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	....
Brooms, brushes, mops, soap and cleaning appliances	....
Fuel	30 00
Electric light, gas, oil and candles	15 00
Ice	8 00
Salaries and wages	159 00
Taxes and insurance and interest	....
Contingencies	28 00
Repairs, ordinary	....
Clothing for patients	....
Hay and straw	....
Printing and postage	....
Total	$621 68
Government grant for 1923	$207 50

GENERAL HOSPITAL, INGERSOLL.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	7
Admitted	181
Births in Hospital	50
Total number under treatment	238
Discharged	217
Died	9
Under treatment, 30th September, 1923	12
	238

Sex.

Male	71
Female	167
	238

Revenue.

From the Province	$ 488 50
From the Town of Ingersoll	1,000 00
From the County of Oxford	....
From patients themselves for maintenance and treatment	8,186 41
From subscriptions, donations and bequests from private individuals	427 00
From other sources	1,108 15
Total	$11,210 06

Expenditures.

Butchers' meat	$753 88
Butter and eggs	397 03
Bread	230 55
Milk	223 30
Tea and coffee	....
Potatoes and other vegetables	....
Groceries and provisions not enumerated	999 09
Drugs and medicines	916 68
Medical and surgical appliances	54 76
Bedding, napery and general house furnishings	48 10
Brooms, brushes, mops, soap and cleaning appliances	12 02
Fuel	1,408 54
Electric light, gas, oil, candles	190 75
Salaries and wages	3,385 92
Insurance and taxes	105 12
Contingencies	165 93
Repairs, ordinary and additions	563 96
Water	78 32
Farm and grounds	....
Advertising and printing	109 66
Beer, wine and spirits	112 86
Electric power	124 56
Ice supply	56 55
Ambulance	1,480 05
X-Ray	18 95
Total	$11,436 58
Government grant for 1923	$472 00

GENERAL HOSPITAL, KENORA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	23
Admitted	372
Number of births in hospital	51
Total number under treatment	446
Discharged	419
Died	8
Under treatment, 30th September, 1923	19
	446

Sex.

Male	271
Female	175
	446

Revenue.

From the Province of Ontario	$2,954 70
From the Town of Kenora	2,500 00
From other municipalities	....
From paying patients	10,046 70
Subscriptions, donations, etc	....
Care of lumber and railway camp cases	....
From other sources	583 83
Total	$16,085 23

Expenditures.

Potatoes and other vegetables	$103 70
Butchers' meat and fish	863 27
Butter and eggs	652 94
Bread	310 40
Milk	452 99
Groceries and provisions not enumerated, flour and meal	1,451 12
Drugs and medicines and surgical appliances	473 63
Surgical instruments	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	635 84
Fuel	2,186 65
Electric light, gas, oil and candles and water	....
Ice	60 00
Salaries and wages	5,995 40
Contingencies	469 97
Repairs, ordinary	2,360 32
Insurance	43 75
Stationery, postage, etc	....
Hay and straw	....
Clothing for patients	....
Brooms, mops, etc	....
Total	$16,059 98
Government aid for 1923	$3,453 70

ST. JOSEPH'S HOSPITAL, KENORA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	11
Admitted	308
Births in Hospital	7
Total number under treatment	326
Discharged	290
Died	22
Under treatment, 30th September, 1923	14
	326

Sex.

Male	200
Female	126
	326

Revenue.

From the Province of Ontario	$1,932 10
From the Town of Kenora	16 50
From Dominion Government	732 20
From patients themselves for maintenance and treatment	7,314 88
From subscriptions, donations and bequests of private individuals	781 66
From other sources	1,424 89
Total	$12,202 23

Expenditures.

Butchers' meat and fish	$509 02
Butter and eggs	741 99
Flour, bread and meal	418 89
Milk	494 51
Tea and coffee	135 84
Potatoes and other vegetables	149 45
Groceries and provisions not enumerated	703 99
Drugs and medicines	234 13
Surgical instruments	35 89
Medical and surgical appliances	254 52
Beer, wine and spirits and mineral water	1 45
Bedding, napery and general house furnishings	302 49
Brooms, brushes, mops, soap and cleaning appliances	138 03
Fuel	834 27
Electric light, gas, oil and candles	78 88
Clothing for patients	37 12
Ice	60 00
Salaries and wages	1,910 50
Insurance	630 47
Contingencies	585 31
Repairs, ordinary	383 69
Hay and straw	574 12
Printing, stationery, etc	82 46
Coffins and funerals	....
Total	$7,297 02
Government grant for 1923	$1,874 00

GENERAL HOSPITAL, KINCARDINE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	9
Admitted	213
Births in Hospital	58
Total number under treatment	280
Discharged	266
Died	8
Under treatment, 30th September, 1923	6
	280

Sex.

Male	113
Female	167
	280

Revenue.

From the Province of Ontario	$307 50
From the Town of Kincardine	....
From patients for maintenance and treatment	4,792 00
From subscriptions, donations and bequests from private individuals	349 37
From other sources	385 00
From County of Bruce	....
Total	$5,833 87

Expenditures.

Butchers' meat	$242 16
Butter and eggs	229 89
Flour, bread and meal	126 57
Milk	4 38
Tea and coffee	45 87
Potatoes and other vegetables	12 00
Groceries and provisions not enumerated	289 12
Drugs and medicines	78 05
Medical and surgical appliances	167 62
Bedding, napery and general house furnishings	16 22
Brooms, brushes, mops, soap and cleaning appliances	77 18
Fuel	1,018 52
Electric light, gas, oil and candles	295 18
Beer, wine and spirits	....
Water supply	47 50
Salaries and wages	3,475 00
Contingencies	669 26
Repairs, ordinary	688 77
Hay and straw	169 43
Printing and postage	45 00
Taxes and insurance	132 50
Ice supply	52 75
Total	$7,882 77
Government grant for 1923	$696 40

GENERAL HOSPITAL, KINGSTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	136
Admitted	3,429
Births in Hospital	147
Total number under treatment	3,712
Discharged	3,438
Died	125
Under treatment, 30th September, 1923	149
	3,712

Sex.

Male	1,642
Female	2,070
	3,712

Revenue.

From the Province of Ontario	$13,557 90
From the City of Kingston	15,000 00
From the County of Frontenac	3,000 00
From other municipalities in the Province	3,040 00
From paying patients themselves for treatment	95,013 65
Subscriptions, donations and bequests	3,729 19
From all other sources not enumerated	2,748 29
Total	$136,089 03

Expenditures.

Butchers' meat	$9,270 01
Butter and eggs	8,438 60
Flour, bread and meal	2,709 57
Milk	7,188 67
Tea and coffee	2,002 20
Potatoes and other vegetables	2,981 33
Groceries and provisions not enumerated	13,418 52
Drugs and medicines	4,627 54
Surgical instruments and appliances	5,711 43
Beer, wine and spirits	761 79
Bedding, napery and general house furnishings	4,561 57
Brooms, brushes, mops, soap and cleaning appliances	1,691 70
Fuel	16,513 56
Electric light, gas, oil and candles	5,414 29
Water supply	519 49
Ice	....
Salaries and wages	34,980 02
Insurance and taxes	995 99
Contingencies	8,793 71
Repairs, ordinary	4,839 79
Printing, stationery, etc	1,429 05
Clothing for patients	5 00
Total	$136,853 83
Government grant for 1923	$14,132 80

HOTEL DIEU HOSPITAL, KINGSTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	93
Admitted	2,096
Births in Hospital	126
Total number under treatment	2,315
Discharged	2,143
Died	69
Under treatment, 30th September, 1923	103
	2,315

Sex.

Male	1,012
Female	1,303
	2,315

Revenue.

From the Province of Ontario	$12,798 70
From the City of Kingston	5,000 00
From the County of Frontenac	2,000 00
From other municipalities	300 00
From patients themselves for maintenance and treatment	51,500 00
Subscriptions, donations and bequests	1,691 00
From other sources not enumerated	8,211 54
Total	$81,501 24

Expenditures.

Butchers' meat	$6,840 22
Butter and eggs	4,893 60
Flour, bread and meal	2,047 49
Milk	3,106 63
Tea and coffee	1,596 99
Potatoes and other vegetables	5,207 02
Groceries and provisions not enumerated	6,223 76
Drugs and medicines	3,006 77
Medical and surgical appliances	3,058 75
Surgical instruments	51 10
Beer, wine and spirits	2,219 74
Bedding, napery and general house furnishings	6,937 75
Brooms, brushes, mops, soap and cleaning appliances	1,176 08
Fuel	12,585 00
Light: gas, oil and candles	4,190 56
Water supply	1,173 90
Ice	...
Salaries and wages	7,953 54
Taxes and insurance	2,269 21
Hay and straw	148 01
Contingencies	1,125 23
Repairs, ordinary	9,761 08
Printing, stationery, etc	808 63
Clothing for patients	26 28
Total	$86,407 34
Government grant for 1923	$12,003 20

KITCHENER AND WATERLOO HOSPITAL, KITCHENER.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	47
Admitted	1,223
Births in Hospital	116
Total number under treatment	1,386
Discharged	1,276
Died	74
Under treatment, 30th September, 1923	36
	1,386

Sex.

Male	572
Female	814
	1,386

Revenue.

From the Province of Ontario	$2,400 80
From the Town of Kitchener	17,370 18
From the Town of Waterloo	3,800 00
From patients for maintenance and treatment	39,987 80
From subscriptions, donations and bequests from private individuals	407 79
From other sources	7,641 89
Total	$71,608 46

Expenditures.

Butchers' meat	$2,912 94
Butter and eggs	2,003 15
Flour, bread and meal	712 98
Milk	1,855 64
Tea and coffee	317 00
Potatoes and other vegetables	2,146 46
Groceries and provisions not enumerated	2,205 19
Drugs and medicines	1,588 13
Medical and surgical appliances	3,728 24
Beer, wine and spirits	407 61
Bedding, napery and general house furnishings	2,018 80
Brooms, brushes, mops, soap and cleaning appliances	1,208 00
Fuel	7,546 65
Electric light, gas, oil and candles	1,949 18
Ice supply	353 40
Salaries and wages	14,693 36
Insurance and taxes	937 50
Contingencies	130 93
Repairs, ordinary	2,218 20
Water supply	621 88
Printing and postage	1,085 13
Ambulance	750 25
Total	$51,390 62
Government grant for 1923	$2,941 70

GENERAL HOSPITAL, LONDON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	184
Admitted	3,778
Births in Hospital	243
Total number under treatment.	4,205
Discharged	3,800
Died	234
Under treatment, 30th September, 1923	171
	4,205

Sex.

Male	1,938
Female	2,267
	4,205

Revenue.

From the Province of Ontario	$19,383 60
From the City of London	137,178 52
From the County of Middlesex in payments of patients	8,139 90
From paying patients themselves	183,889 87
From income from property or investments	529 50
Subscriptions, donations and other sources	3,893 94
Total	$353,015 33

Expenditures.

Butchers' meat	$26,035 86
Butter and eggs	15,881 79
Flour, bread and meal	4,711 05
Milk	11,894 88
Tea and coffee	2,705 95
Potatoes and other vegetables	2,803 78
Groceries and provisions not enumerated	21,881 78
Drugs and medicines	9,174 68
Surgical instruments	1,170 44
Medical and surgical appliances	22,960 96
Beer, wine and spirits	929 38
Bedding, napery and general house furnishings	17,496 52
Brooms, brushes, mops, soap and cleaning appliances	1,967 01
Fuel	50,148 71
Light: Gas, oil and candles	2,724 37
Water	2,279 99
Ice	1,764 60
Salaries and wages	116,880 56
Insurance	5,422 61
Contingencies	10,916 14
Repairs, ordinary	6,602 32
Printing and stationery	2,963 07
Laundry	11,605 96
Total	$350,922 41
Government grant for 1923	$15,005 90

ST. JOSEPH'S HOSPITAL, LONDON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	82
Admitted	1,871
Births in Hospital	216
Total number under treatment.	2,169
Discharged	1,962
Died	80
Under treatment, 30th September, 1923	127
	2,169

Sex.

Male	856
Female	1,313
	2,169

Revenue.

From the Province of Ontario	$3,138 30
From the City of London	2,464 50
From the County of Middlesex	678 00
From other municipalities	....
From paying patients	89,369 43
Subscriptions, donations, etc.	5,000 00
Other sources	....
Total	$100,650 23

Expenditures.

Butchers' meat	$7,218 29
Butter and eggs	7,067 71
Flour, bread and meal	2,803 55
Milk	5,672 00
Tea and coffee	880 09
Potatoes and other vegetables	1,174 50
Fruit	2,020 63
Groceries and provisions not enumerated	8,542 68
Drugs and medicines	3,833 07
Medical and surgical appliances	8,354 16
Beer, wine and spirits	314 31
Bedding, napery and general house furnishings	13,861 82
Brooms, brushes, mops, soap and cleaning appliances	1,026 29
Fuel	12,786 27
Light: gas, oil and candles	1,526 46
Water	507 32
Telephone	255 55
Ice	495 40
Salaries and wages	11,850 25
Insurance, taxes and interest	3,141 10
Contingencies	882 18
Repairs, ordinary	5,816 70
Printing, stationery, postage, etc.	517 53
Total	$100,547 86
Government grant for 1923	$3,230 30

VICTORIA HOME FOR INCURABLES, LONDON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	71
Admitted	24
Births in Hospital	....
Total number under treatment	95
Discharged	7
Died	22
Under treatment, 30th September, 1923	66
	95

Sex.

Male	34
Female	61
	95

Revenue.

From the County of Middlesex	$ 1,779 00
From the Province of Ontario	12,737 00
From the City of London	12,048 00
From other municipalities in the Province	1,273 50
From paying patients themselves	17,139 61
From subscriptions, donations, etc	1,110 83
From other sources	....
Total	$46,087 94

Expenditures.

Butchers' meat and fish	$1,337 13
Butter and eggs	1,395 89
Flour, bread and meal	817 43
Milk	831 04
Tea and coffee	493 60
Potatoes and other vegetables	578 68
Groceries and provisions not enumerated	2,121 72
Drugs and medicines	363 87
Medical and surgical appliances	....
Surgical instruments	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	783 56
Brooms, brushes, mops, soap and cleaning appliances	651 19
Fuel	3,157 55
Electric light, gas, oil and candles	892 15
Water supply	192 34
Salaries and wages	15,331 12
Taxes and insurance	190 03
Contingencies	355 11
Repairs, ordinary	1,462 11
Clothing for patients	125 20
Hay and straw	13 65
Printing and postage	61 21
Ice supply	112 09
Total	$31,266 67
Government grant for 1923	$12,705 00

BETHESDA HOSPITAL, LONDON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	21
Number admitted	335
Births in Hospital	286
Total number under treatment	642
Discharged	596
Died	27
Under treatment, 30th Sept., 1923	19
	642

Sex.

Male	155
Female	487
	642

Revenue.

From the Province of Ontario	$3,485 20
From the City of London	200 00
From County of Middlesex	150 00
From other municipalities of the Province	....
From paying patients	15,017 30
From property belonging to the Hospital	....
From subscriptions, bequests and donations from private individuals	180 00
From other sources not enumerated	6,535 59
Total	$25,568 09

Expenditures.

Butchers' meat, Butter and eggs, Flour, bread and meal, Milk, Tea and coffee, Potatoes and other vegetables, Groceries and provisions not enumerated, Drugs and medicines	$7,371 47
Medical and surgical appliances	4,313 99
Bedding, napery and general house furnishings, Brooms, brushes, mops, soap and cleaning appliances	2,583 61
Fuel, Electric light, gas, oil, candles	4,609 77
Water supply, Ice supply	265 5
Salaries and wages	10,893 39
Taxes, insurance and rent	2,616 00
Contingencies	47 72
Repairs, ordinary	1,662 03
Telephone	....
Printing, stationery, etc	599 83
Laundry espenses	....
Surgical instruments	....
Total	$34,913 32
Government grant for 1923	$2,876 60

LISTOWEL MEMORIAL HOSPITAL, LISTOWEL.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	5
Admitted	184
Births in the Hospital	18
Total number under treatment	207
Discharged	192
Died	4
Under treatment, 30th September, 1923	11
	207

Sex.

Male	88
Female	119
	207

Revenue.

From the Province of Ontario	$1,139 40
From the Town of Listowel	1,500 00
From the County of Perth	1,500 00
From other municipalities	200 00
From patients for maintenance and treatment	7,137 10
Income from endowments, investments, etc.	11 80
From subscriptions, donations and bequests from private individuals	464 90
From all other sources	590 63
Total	$12,543 83

Expenditures.

Butchers' meat	$564 22
Butter and eggs	395 99
Flour, bread and meal	164 56
Milk	287 85
Tea and coffee	76 49
Potatoes and other vegetables	90 50
Groceries and provisions not enumerated	415 02
Drugs and medicines	97 94
Medical and surgical appliances and surgical instruments	307 28
Beer, wine and spirits	17 75
Bedding, napery and general house furnishings	639 95
Brooms, brushes, mops, soap and cleaning appliances	144 93
Fuel	1,388 62
Electric light, gas, oil, candles	206 59
Ice	44 50
Salaries and wages	4,678 73
Taxes and insurance	161 75
Printing, stationery, etc.	102 10
Contingencies	3,707 43
Repairs, ordinary	159 30
Water supply	29 54
War tax	...
Total	$13,681 04
Government grant for 1923	$1,006 00

THE ROSS MEMORIAL HOSPITAL, LINDSAY.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	25
Admitted	729
Births in Hospital	57
Total number under treatment	811
Discharged	726
Died	53
Under treatment, 30th September, 1923	32
	811

Sex.

Male	372
Female	439
	811

Revenue.

From the Province of Ontario	$1,545 20
From the Town of Lindsay	600 00
From the County of Victoria	1,100 00
From other municipalities	..
From patients themselves for maintenance and treatment	18,048 08
Income from endowments	....
Subscriptions, donations and bequests of private individuals	91 50
From other sources not enumerated	4,389 50
Total	$25,774 28

Expenditures.

Butchers' meat	$1,579 54
Butter and eggs	1,050 10
Flour, bread and meal	506 75
Milk	816 85
Tea and coffee	287 85
Potatoes and other vegetables	413 33
Groceries and provisions not enumerated	1,243 75
Drugs and medicines	1,509 92
Medical and surgical appliances	2,063 97

THE ROSS MEMORIAL HOSPITAL, LINDSAY.—*Continued.*

Surgical instruments	60	90	Ice	265	00
Beer, wine and spirits	93	55	Salaries and wages	8,343	41
Bedding, napery and general house furnishings	3,715	89	Contingencies	2,818	26
Brooms, brushes, mops, soap and cleaning appliances	566	31	Repairs, ordinary and concrete driveway	1,093	70
Fuel	2,181	71	Taxes and insurance	641	83
Electric light, gas, oil and candles	80	27	Stationery, postage, etc	358	78
Water supply	93	50	Total	$29,785	17
Clothing for patients, including boots and shoes	....		Government grant for 1923	$1,891	80

ROSEDALE WAR MEMORIAL HOSPITAL, MATHESON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	187
Births in Hospital	24
Total number under treatment	135
Discharged	129
Died	4
Under treatment, 30th September, 1923	2
	135

Sex.

Male	70
Female	65
	135

Revenue.

From the Province of Ontario	$286 00
From the Town of Matheson	....
From the County of	....
From patients themselves for maintenance and treatment	2,009 00
Subscriptions, donations and bequests	365 02
From other sources not enumerated	3,858 47
Total	$6,518 49

Expenditures.

Butchers' meat	$370 39
Butter and eggs	106 74
Flour, bread and meal	60 59
Milk	68 11
Tea and coffee	21 24
Potatoes and other vegetables	65 80
Groceries and provisions not enumerated	266 51
Drugs and medicines	106 44
Medical and surgical appliances	108 20
Surgical instruments	10 00
Beer, wine and spirits	39 40
Bedding, napery and general house furnishings	108 20
Brooms, brushes, mops, soap and cleaning appliances	20 00
Fuel	950 05
Light: gas, oil and candles	66 20
Water supply	....
Hay and straw	....
Clothing for patients, including boots and shoes	....
Laundry	132 13
Salaries and wages	2,363 31
Taxes and insurance	....
Contingencies	257 07
Repairs, ordinary	226 59
Printing, stationery, etc	76 58
Total	$5,403 92
Government grant for 1923	$729 50

GENERAL HOSPITAL, MATTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	18
Admitted	400
Total number under treatment	418
Discharged	388
Died	11
Under treatment, 30th September, 1923	19
	418

GENERAL HOSPITAL, MATTAWA.—*Continued.*

Sex.

Male	349
Female	69
	418

Revenue.

From the Province of Ontario	$2,469 30
From the Town of Mattawa	100 00
From patients for maintenance and treatment	8,401 16
From subscriptions, bequests and donations of private individuals	278 92
From other sources	2,876 06
Total	$14,125 44

Expenditures.

Butchers' meat	$474 20
Butter and eggs	394 35
Flour, bread and meal	270 25
Groceries and provisions not enumerated	1,035 00
Drugs and medicines	246 61
Medical and surgical appliances	273 95
Beer, wine and spirits	56 00
Surgical instruments	185 17
Bedding, napery and general house furnishings	324 00
Brooms, brushes, etc	242 54
Fuel	3,475 25
Electric light, gas, oil, candles	558 00
Water supply	260 00
Milk	345 60
Tea and coffee	205 64
Potatoes and other vegetables	315 00
Printing, stationery, etc	71 73
Hay and straw	346 00
Ice	92 00
Salaries and wages	2,396 75
Taxes and insurance	169 58
Repairs, ordinary, and additions	2,284 30
Contingencies	343 00
Clothing for patients	242 24
Coffins and funerals	....
Total	$14,607 16
Government grant for 1923	$3,372 60

GENERAL HOSPITAL, MIDLAND.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	18
Admitted	510
Births in Hospital	50
Total number under treatment	578
Discharged	536
Died	25
Under treatment, 30th September, 1923	17
	578

Sex.

Male	259
Female	319
	578

Revenue.

From the Province of Ontario	$1,595 40
From the Town of Midland	....
From the County of Simcoe	1,000 00
From other municipalities	....
From patients themselves for maintenance and treatment	16,374 58
From subscriptions, donations and bequests from private individuals	154 62
From other sources	141 39
Total	$19,265 99

Expenditures.

Butchers' meat	$605 20
Butter and eggs	513 28
Flour, bread and meal	381 53
Milk	....
Tea and coffee	142 07
Potatoes and other vegetables	322 68
Groceries and provisions not enumerated	1,143 78
Drugs and medicines; Surgical instruments and appliances	1,969 89
Beer, wine and spirits	207 35
Bedding, napery and general house furnishings	750 37
Brooms, brushes, mops, soap and cleaning appliances	115 07
Fuel	1,525 04
Light: electric, gas, oil and candles and X-Ray	460 07
Water supply	205 28
Ice	24 80
Salaries and wages	5,423 64
Printing, stationery, etc	181 56
Contingencies	328 02
Repairs, ordinary and additions	2,977 61
Taxes and insurance	100 31
Laundry	1,175 52
Hay and straw	331 55
Telephone	....
Total	$18,884 62
Government grant for 1923	$1,996 00

MOUNT FOREST GENERAL HOSPITAL, MOUNT FOREST

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	1
Admitted	116
Births in Hospital	11
Total number under treatment	128
Discharged	113
Died	9
Under treatment, 30th September, 1923	6
	128

Sex.

Male	58
Female	70
	128

Revenue.

From the Province of Ontario	....
From the Town of Mount Forest	$47 00
From the County of Wellington	117 50
From other municipalities	....
From patients themselves for maintenance and treatment	5,199 99
From subscriptions, bequests and donations of private persons	1,666 03
From all other sources not enumerated	2,388 93
Total	$9,419 45

Expenditures.

Butchers' meat and fish	$188 72
Butter and eggs	57 72
Flour, bread and meal	86 67
Milk	144 47
Tea and coffee	16 90
Potatoes and other vegetables	62 42
Groceries and provisions not enumerated	386 41
Drugs and medicines	365 38
Medical and surgical appliances	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	424 83
Brooms, brushes, mops, soap and cleaning appliances	....
Fuel	706 29
Electric light, gas, oil	58 89
Ice	27 00
Salaries and wages	4,450 80
Insurance and interest	....
Contingencies	....
Repairs, ordinary	145 67
Printing, stationery, etc	308 37
Freight and cartage	....
X-ray expenses	....
Loans paid	1,500 00
Water supply	16 00
Total	$8,946 54
Government grant for 1923	$954 20

YORK COUNTY HOSPITAL, NEWMARKET

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	6
Admitted	242
Births in Hospital	9
Total number under treatment	257
Discharged	236
Died	17
Under treatment, 30th September, 1923	4
	257

Sex.

Male	130
Female	127
	257

Revenue.

From County of York	$250 00
From the Province of Ontario	....
From the Town of Newmarket	280 00
From patients themselves for maintenance and treatment	6,458 38
From subscriptions, donations and bequests from private individuals	105 00
From other sources	....
From other municipalities	738 50
Total	$7,831 88

Expenditures.

Butchers' meat and fish	$243 30
Butter and eggs	336 94
Milk	301 34
Tea and coffee	37 05
Potatoes and other vegetables	244 05
Groceries and provisions not enumerated	572 47
Flour, bread and meal	68 62
Drugs and medicines	163 54
Surgical and medical appliances	778 03
Beer, wine and spirits	....
Bedding, napery and general house furnishings	623 90
Fuel	522 51
Brooms, brushes, mops, soap and cleaning appliances	149 39
Electric light, gas, oil and power	198 93
Water supply	11 45
Ice	....
Salaries and wages	1,519 81
Taxes and insurance, telephone and power	161 47
Stationery, printing, etc	199 71
Contingencies	529 44
Repairs, ordinary	383 22
Hay and straw	.....
Total	$7,045 17
Government grant for 1923	$1,073 00

LADY MINTO HOSPITAL, NEW LISKEARD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	10
Admitted	393
Births in Hospital	26
Total number under treatment	429
Discharged	388
Died	24
Under treatment, 30th September, 1923	17
	429

Sex.

Male	262
Female	167
	429

Revenue.

From the Province of Ontario	$438 50
From the Town of New Liskeard	....
From other municipalities	....
From Victorian Order	....
From patients for maintenance and treatment	13,095 83
From subscriptions, donations and bequests from private individuals	2,568 20
From other sources	681 48
Total	$16,784 01

Expenditures.

Butchers' meat	$824 87
Butter and eggs	658 20
Flour, bread and meal	475 88
Milk	940 28
Tea and coffee	152 85
Potatoes and other vegetables	301 66
Groceries and provisions not enumerated	1,379 07
Drugs and medicines	479 40
Medical and surgical appliances	1,099 74
Beer, wine and spirits	61 30
Bedding, napery and general house furnishings	927 54
Brooms, brushes, mops, soap and cleaning appliances	386 70
Fuel	1,319 78
Electric light, gas, oil and power	452 25
Ice supply	69 75
Salaries and wages	4,857 92
Repairs, ordinary and additions	458 04
Laundry	....
Printing, stationery, etc	604 80
Taxes and insurance	87 50
Contingencies	17 00
Total	$15,554 53
Government grant for 1923	$1,306 00

GENERAL HOSPITAL, NIAGARA FALLS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	46
Admitted	966
Births in Hospital	114
Total under treatment	1,126
Discharged	1,022
Died	61
Under treatment, 30th September 1923	43
	1,126

Sex.

Male	548
Female	578
	1,126

Revenue.

From the Province of Ontario	$4,531 60
From the Town of Niagara Falls	2,500 00
From the County of Welland	1,500 00
From other municipalities	350 00
From patients for maintenance and treatment	39,597 46
From subscriptions, donations and bequests from private individuals	1,012 00
From other sources	225 10
Total	$49,716 16

Expenditures.

Butchers' meat	$2,838 61
Butter and eggs	2,972 11
Flour, bread and meal	885 88
Milk	2,022 03
Tea and coffee	509 40
Potatoes and other vegetables	3,032 32
Groceries and provisions not enumerated	2,008 49
Drugs and medicines	2,678 94
Medical and surgical appliances	2,617 47
Surgical instruments	110 38
Beer, wine and spirits	71 30
Bedding, napery and general house furnishings	1,223 12

GENERAL HOSPITAL, NIAGARA FALLS.—*Continued.*

Brooms, brushes, mops, soap and cleaning appliances	778 42
Fuel	2,564 52
Electric light, gas, oil, candles	1,003 76
Ice supply	415 31
Salaries and wages	14,558 43
Contingencies	1,726 67
Repairs, ordinary	1,325 73
Taxes, insurance, rent	465 09
Water supply	51 32
Printing and postage	528 03
Laundry and ambulance	972 15
Telephone	....
Capital account	5,000 00
Total	$50,359 48
Government grant for 1923	$4,973 10

COTTAGE HOSPITAL, NIAGARA-ON-THE-LAKE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	92
Births in Hospital	19
Total number under treatment	115
Discharged	105
Died	7
Under treatment, 30th September, 1923	3
	115

Sex.

Male	39
Female	76
	115

Revenue.

From the Province of Ontario	$703 50
From the City of Niagara-on-the-Lake	....
From the County of Lincoln	636 65
From patients for maintenance and treatment	3,104 64
From other sources	1,896 83
Total	$6,341 62

Expenditures.

Butchers' meat	$259 90
Butter and eggs	224 70
Flour, bread and meal	107 75
Milk	134 23
Tea and coffee	59 89
Potatoes and other vegetables	73 34
Groceries and provisions not enumerated	277 27
Drugs and medicines	113 19
Medical and surgical appliances	109 08
Surgical instruments	60
Beer, wine and spirits	52 80
Bedding, napery and general house furnishings	301 03
Brooms, brushes, mops, soap and cleaning appliances	36 73
Fuel	845 61
Electric light, gas, oil and candles	142 53
Water supply	39 40
Salaries and wages	2,599 12
Insurance and taxes	31 83
Contingencies	289 50
Repairs, ordinary	301 97
Ice	36 90
Merchandise, printing and postage	48 38
Total	$6,085 75
Government grant for 1923	$588 00

QUEEN VICTORIA MEMORIAL HOSPITAL, NORTH BAY.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	20
Admitted	643
Births in Hospital	71
Total number under treatment	734
Discharged	682
Died	31
Under treatment, 30th September, 1923	21
	734

Sex.

Male	343
Female	391
	734

Revenue.

From the Province of Ontario	$6,178 80
From the Town of North Bay	669 55
From other municipalities	712 50
From patients themselves for maintenance and treatment	21,577 24
Subscriptions, donations, etc.	145 18
From other sources	710 97
Total	$29,994 24

QUEEN VICTORIA MEMORIAL HOSPITAL, NORTH BAY.—*Continued.*

Expenditures.

Butchers' meat	$1,648 59
Butter and eggs	955 95
Flour, bread and meal	366 98
Milk	930 73
Tea and coffee	200 35
Potatoes and other vegetables	556 14
Groceries and provisions not enumerated	1,517 26
Drugs and medicines	550 60
Surgical instruments and appliances	1,266 31
Bedding, napery and general house furnishings	2,572 11
Brooms, brushes, mops, soap and cleaning appliances	283 65
Fuel	2,936 12
Electric light, gas, oil, candles	196 05
Water supply	60 50
Ice	90 00
Salaries and wages	8,457 27
Contingencies	2,007 00
Repairs, ordinary	1,706 50
Beer, wine and spirits	39 49
Taxes and insurance	38 25
Printing and postage	295 67
Surgical instruments	91 49
Bank overdraft	....
Interest and exchange	30 03
Total	$26,797 04
Government grant for 1923	$2,713 40

GENERAL HOSPITAL, ORANGEVILLE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	15
Admitted	184
Births in Hospital	38
Total number under treatment	237
Discharged	212
Died	15
Under treatment, 30th September, 1923	10
	237

Sex.

Male	86
Female	151
	237

Revenue.

From the Province of Ontario	$1,440 50
From the Town of Orangeville	....
From the County of Dufferin	....
From other municipalities	....
From patients for maintenance and treatment	7,527 84
From endowments, investments, etc.	....
From subscriptions, donations, and bequests from private individuals	....
From other sources	....
Total	$8,968 34

Expenditures.

Butchers' meat	$441 68
Butter and eggs	631 91
Flour, bread and meal	185 82
Milk	433 65
Tea and coffee	242 17
Potatoes and other vegetables	....
Groceries and provisions not enumerated	1,039 47
Drugs and medicines	1,069 92
Medical and surgical appliances	1,264 80
Beer, wine and spirits	280 16
Bedding, napery and general house furnishings	713 75
Brooms, brushes, mops, soap and cleaning appliances	40 93
Fuel	1,470 97
Light: gas, oil and candles	167 94
Water	....
Ice supply	49 40
Salaries and wages	1,424 00
Laundry	1,360 00
Contingencies	392 92
Repairs, ordinary and additions	....
Printing, stationery and postage	30 45
Taxes and insurance and rent	105 02
Telephone	94 98
Total	$11,439 94
Government grant for 1923	$590 00

GENERAL HOSPITAL, ORILLIA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	29
Admitted	853
Births in Hospital	138
Total number under treatment	1,020
Discharged	940
Died	35
Under treatment, 30th September, 1923	45
	1,020

Sex.

Male	397
Female	623
	1,020

Revenue.

From the Province of Ontario	$3,263 90
From the Town of Orillia	3,324 00
From the County of Simcoe	1,000 00
From patients themselves for maintenance and treatment	28,486 46
From subscriptions, donations and bequests from private individuals	390 02
From other sources	....
Total	$36,464 38

Expenditures.

Butchers' meat	$1,504 32
Butter and eggs	866 71
Flour, bread and meal	682 06
Milk	1,582 90
Tea and coffee	279 00
Potatoes and other vegetables	372 78
Groceries and provisions not enumerated	3,273 64
Drugs and medicines	1,213 30
Medical and surgical appliances	1,580 42
Bedding, napery and general house furnishings	695 72
Brooms, brushes, mops, soap and cleaning appliances	100 43
Fuel	2,381 69
Electric light, gas, oil and candles	1,398 82
Water supply	280 38
Beer, wine and spirits	....
Salaries and wages	8,360 54
Taxes and insurance	308 09
Contingencies	....
Repairs, ordinary	2,437 06
Printing, stationery and interest	7,132 38
Ice supply	....
Capital account	5,325 39
Total	$39,775 63
Government grant for 1923	$4,048 00

GENERAL HOSPITAL, OSHAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	50
Admitted	1,189
Number of births in Hospital	155
Total number under treatment	1,394
Discharged	1,301
Died	48
Under treatment, 30th September, 1923	45
	1,394

Sex.

Male	605
Female	789
	1,394

Revenue.

From the Province of Ontario	$2,713 30
From the Town of Oshawa	1,168 95
From the County of Ontario	1,683 00
From paying patients	39,207 53
Subscriptions, donations, etc.	45 00
From all other sources	9,972 22
Total	$54,790 00

Expenditures.

Butchers' meat and fish	$1,838 13
Butter and eggs	1,581 11
Flour, bread and meal	916 73
Milk	1,779 06
Tea and coffee	390 91
Potatoes and other vegetables	485 94
Groceries and provisions not enumerated	3,537 92
Drugs and medicines	2,235 17
Medical and surgical appliances	2,514 57
Beer, wine and spirits	65 09
Bedding, napery and general house furnishings	5,433 97
Brooms, brushes, mops, soap and cleaning appliances	476 66
Fuel	7,076 42
Electric light, gas, oil, candles	2,314 76
Water supply	464 67
Ice	12 75
Salaries and wages	13,314 06
Contingencies	1,171 47
Repairs, ordinary	2,976 98
X-Ray expenses	1,637 77
Printing, stationery and postage	657 58
Taxes and insurance	1,446 41
Telephones	224 19
Laboratory	579 97
Total	$53,132 29
Government grant for 1923	$2,738 90

GENERAL PROTESTANT HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1922	115
Admitted	2,977
Births in Hospital	11
Total number under treatment	3,103
Discharged	2,836
Died	143
Under treatment 30th September, 1923	124
	3,103

Sex.

Male	1,444
Female	1,659
	3,103

Revenue.

From the Province of Ontario	$10,214 50
From the City of Ottawa	27,386 30
From the County of Carleton	1,800 00
From other municipalities	600 00
From patients themselves for maintenance and treatment	121,237 88
Income from endowments, investments, etc	....
Subscriptions, donations, and bequests of private individuals	3,123 00
From other sources not enumerated	....
Total	$164,361 68

Expenditures.

Butchers' meat	$9,450 16
Butter and eggs	7,201 24
Flour, bread and meal	2,490 33
Milk	5,535 36
Tea and coffee	1,535 27
Potatoes and other vegetables	1,656 20
Groceries and provisions not enumerated	8,303 77
Drugs and medicines	5,479 45
Medical and surgical appliances	9,817 44
Surgical instruments	964 40
Beer, wine and spirits	2,276 25
Bedding, napery and general house furnishings	4,583 13
Brooms, brushes, mops, soap and cleaning appliances	2,746 66
Fuel	17,696 65
Electric light, gas, oil, candles	2,933 00
Water supply	5,913 26
X-Ray	7,594 47
Ice	328 03
Salaries and wages	54,343 08
Taxes and insurance, rent	537 25
Contingencies	2,261 66
Repairs, ordinary	3,295 63
Rent on annex	2,466 64
Printing, stationery, etc	2,827 48
Total	$162,236 81
Government grant for 1923	$11,080 30

ROMAN CATHOLIC HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movement of Patients.

Number under treatment, 1st October, 1922	150
Admitted	3,812
Births in Hospital	10
Total number under treatment	3,972
Discharged	3,649
Died	180
Under treatment, 30th September, 1923	143
	3,972

Sex.

Male	1,812
Female	2,160
	3,972

Revenue.

From the Province of Ontario	$18,503 80
From the City of Ottawa	28,478 75
From the County of Carleton	50 00
From other municipalities	3,526 71
From patients themselves for maintenance and treatment	105,445 53
Income from property	2,314 46
Subscriptions, donations and bequests of private individuals	2,068 24
From all other sources not enumerated	26,734 97
Total	$187,122 46

Expenditures.

Butchers' meat	$8,176 77
Butter and eggs	6,605 62
Flour, bread and meal	1,859 90
Milk	6,108 38
Tea and coffee	1,389 45
Potatoes and other vegetables	5,137 86
Groceries and provisions not enumerated	3,482 96
Drugs and medicines	8,270 38
Medical and surgical appliances	7,362 64
Surgical instruments	2,617 48
Beer, wine and spirits	2,344 60

ROMAN CATHOLIC HOSPITAL, OTTAWA.—*Continued.*

Bedding, napery and general house furnishings	24,892 86
Brooms, brushes, mops, soap and cleaning appliances	4,044 62
Fuel	15,222 17
Electric light, gas, oil, candles	3,612 58
Water supply	1,716 55
Clothing for patients, including boots and shoes	403 16
Ice	147 47
Salaries and wages	23,769 59
Taxes and insurance	2,325 50
Contingencies	1,473 30
Repairs, ordinary and additions	3,598 00
Printing, stationery, etc	2,379 05
Telephones	922 20
Radiographic dept	17,212 94
Total	$155,076 03
Government grant for 1923	$14,477 10

MATERNITY HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	29
Admitted	395
Number of births	363
Total number under treatment	787
Discharged	752
Died	12
Under treatment, 30th September, 1923	23
	787

Sex.

Male	233
Female	554
	787

Revenue.

From the Province of Ontario	$830 00
From the City of Ottawa	2,160 00
From the County of Carleton	100 00
From paying patients themselves	19,389 11
From subscriptions and donations	154 37
From other sources	5,688 09
Total	$28,321 57

Expenditures.

Butchers' meat	1,624 43
Butter and eggs	1,234 30
Flour, bread and meal	381 40
Milk	724 76
Tea and coffee	306 10
Potatoes and other vegetables	795 91
Groceries and provisions not enumerated	666 31
Drugs and medicines	584 29
Medical and surgical appliances	343 27
Surgical dressings	2,099 69
Bedding, napery and general house furnishings	659 70
Brooms, brushes, mops, soap and cleaning appliances	302 77
Fuel	2,205 65
Gas, oil, candles and electric light and power	1,104 30
Water supply	55 10
Beer, wine and spirits	19 38
Ice	221 00
Salaries and wages	10,019 50
Stationery, printing, etc	149 34
Contingencies	501 91
Repairs, ordinary	1,555 44
Taxes and insurance	12 54
Laundry	633 21
Rent	1,200 00
Total	$27,400 80
Government grant for 1923	$794 00

MISERICORDIA MATERNITY HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	167
Admitted	375
Births in Hospital	250
Total number under treatment	792
Discharged	518
Died	125
Under treatment, 30th September, 1923	149
	792

MISERICORDIA MATERNITY HOSPITAL, OTTAWA.—*Continued.*

Sex.

Male	225
Female	567
	792

Revenue.

From the Province of Ontario	$3,250 50
From the City of Ottawa	3,375 00
From the County of Carleton	50 00
From patients themselves for maintenance and treatment	6,758 45
Subscriptions, donations and bequests	7,933 22
From other sources not enumerated	7,219 87
Total	$28,587 04

Expenditures.

Butchers' meat	$1,631 70
Butter and eggs	1,261 66
Flour, bread and meal	918 90
Milk	3,905 42
Tea and coffee	325 55
Potatoes and other vegetables	768 45
Groceries and provisions not enumerated	1,135 10
Drugs and medicines	514 76
Medical and surgical appliances	434 12
Surgical instruments	14 10
Beer, wine and spirits	73 01
Bedding, napery and general house furnishings	1,732 83
Brooms, brushes, mops, soap and cleaning appliances	254 43
Fuel	5,238 41
Light: gas, oil, and candles	884 44
Water supply	605 46
Hay and straw	128 20
Clothing for patients, including boots and shoes	115 65
Ice	378 02
Salaries and wages	4,559 30
Taxes and insurance	515 31
Contingencies	528 85
Repairs, ordinary	2,525 39
Printing, stationery, etc	345 19
Coffins and funerals	....
Total	$28,794 25
Government grant for 1923	$2,362 50

THE PROTESTANT INFANTS' HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1922	39
Admitted	80
Births in Hospital	....
Total number under treatment	119
Discharged	73
Died	17
Under treatment, 30th September, 1923	29
	119

Sex.

Male	73
Female	46
	119

Revenue.

From the Province of Ontario	766 55
From the City of Ottawa	10,340 50
From the County of Carleton	....
From other municipalities	....
From patients themselves for maintenance and treatment	1,430 98
Subscriptions, donations and bequests	6,751 64
From other sources not enumerated	124 19
Total	$19,413 86

Expenditures.

Butchers' meat	$437 16
Butter and eggs	504 36
Flour, bread and meal	187 36
Milk	760 40
Tea and coffee	49 35
Potatoes and other vegetables	84 44
Groceries and provisions not enumerated	834 37
Drugs and medicines	486 80
Medical and surgical appliances	47 29
Surgical instruments	174 92
Beer, wine and spirits	5 10
Bedding, napery and general house furnishings	303 92
Brooms, brushes, mops, soap and cleaning appliances	243 48
Fuel	1,454 57
Light: gas, oil, and candles	504 86
Water supply	51 34
Ice	81 25
Salaries and wages	6,268 02
Taxes and insurance	101 50
Rent	....
Contingencies	511 94
Repairs, ordinary	2,216 18
Printing, stationery, etc	343 06
Clothing for patients	92 40
Telephone	....
Total	$15,744 07
Government grant for 1923	$2,835 50

ST. LUKE'S GENERAL HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	111
Admitted	2,327
Births in Hospital	....
Total number under treatment	2,438
Discharged	2,205
Died	123
Under treatment, 30th September, 1923	110
	2,438

Sex.

Male	1,414
Female	1,024
	2,438

Revenue.

From the Province of Ontario	$7,170 30
From the City of Ottawa	19,431 00
From the County of Carleton	300 00
From paying patients themselves	107,519 44
Income from investments	....
From subscriptions and donations	376 50
From other sources	6,718 26
Total	$141,515 50

Expenditures.

Butchers' meat	$13,448 16
Butter and eggs	7,336 83
Flour, bread and meal	2,986 12
Milk	6,223 98
Tea and coffee	1,656 34
Potatoes and other vegetables	2,099 46
Groceries and provisions not enumerated	10,689 84
Drugs and medicines	5,243 53
Medical and surgical appliances	9,968 99
Surgical instruments	1,194 16
Beer, wine and spirits	859 84
Bedding, napery and general house furnishings	2,468 25
Brooms, brushes, mops, soap and cleaning appliances	2,912 30
Fuel	19,911 70
Gas, oil, candles and electric light	
Ice	2,059 47
Salaries and wages	539 43
Taxes, insurance and interest	49,921 91
Contingencies	269 63
Repairs, ordinary	3,182 61
Printing and postage	2,927 54
Loan repaid	2,123 43
Water supply	1,994 58
X-Ray supply	1,839 77
Rent	725 00
Total	$152,582 87
Government grant for 1923	$8,667 20

THE PERLEY HOME FOR INCURABLES, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October 1922	49
Admitted	26
Births in Hospital	....
Total number under treatment	75
Discharged	6
Died	15
Under treatment, 30th September, 1923	54
	75

Sex.

Male	28
Female	47
	75

Revenue.

From the Province of Ontario	$9,129 50
From the City of Ottawa	2,970 00
From the County of Carleton	....
From other municipalities	....
From patients themselves for maintenance and treatment	8,014 53
Subscriptions, donations and bequests	2,300 00
From other sources not enumerated	....
Income from property	305 00
Total	$22,719 03

Expenditures.

Butchers' meat	$1,133 25
Butter and eggs	943 75
Flour, bread and meal	784 94
Milk	1,031 39
Tea and coffee	355 22
Potatoes and other vegetables	255 96
Groceries and provisions not enumerated	1,224 18
Drugs and medicines	200 95
Medical and surgical appliances	....
Surgical instruments	....
Beer, wine and spirits	32 35

THE PERLEY HOME FOR INCURABLES, OTTAWA.—*Continued.*

Bedding, napery and general house furnishings	....
Brooms, brushes, mops, soap and cleaning appliances	100 35
Fuel	3,852 23
Light: gas, oil, and candles	428 16
Water supply	128 73
Ice	76 05
Salaries and wages	8,749 23
Taxes and insurance	238 92
Hay and straw	....
Contingencies	2,321 78
Repairs, ordinary	229 92
Printing, stationery, etc	21 57
Clothing for patients	....
Bank loan paid	....
Total	$22,108 93
Government grant for 1923	$9,419 00

SALVATION ARMY MATERNITY HOSPITAL, OTTAWA

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	46
Admitted	727
Number of births	640
Total number under treatment.	1,413
Discharged	1,312
Died	34
Under treatment, 30th September, 1923	67
	1,413

Sex.

Male	349
Female	1,064
	1,413

Revenue.

From the Province of Ontario	....
From the City of Ottawa	$810 00
From the County of Carleton	200 00
From paying patients themselves	27,371 83
From subscriptions and donations	2,067 02
From other sources	1,748 00
Total	$32,196 85

Expenditures.

Butchers' meat, Butter and eggs, Flour, bread and meal, Milk, Tea and coffee, Potatoes and other vegetables, Groceries and provisions not enumerated	$8,818 33
Drugs and medicines, Medical and surgical appliances, Surgical dressings	4,633 16
Bedding, napery and general house furnishings, Brooms, brushes, mops, soap and cleaning appliances	1,848 29
Fuel	4,329 62
Gas, oil, candles and electric light and power	....
Water supply	....
Beer, wine and spirits	....
Ice	....
Salaries and wages	10,223 77
Stationery, printing, etc	....
Contingencies	3,597 85
Repairs, ordinary	2,304 94
Taxes and insurance and water	338 88
Laundry	....
Rent	3,048 00
Total	$39,369 41
Government grant for 1923	$4,203 00

GENERAL AND MARINE HOSPITAL, OWEN SOUND.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	29
Admitted	835
Births in Hospital	117
Total number under treatment	981
Discharged	926
Died	28
Under treatment, 30th September, 1923	27
	981

Sex.

Male	442
Female	539
	981

Revenue.

From the Province of Ontario	$2,015 00
From the Town of Owen Sound	4,000 00
From the County of Grey	500 00
From other municipalities	....
From patients themselves for maintenance and treatment	24,072 06
From subscriptions, bequests and donations of private persons	1,000 00

GENERAL AND MARINE HOSPITAL, OWEN SOUND.—*Continued.*

From all other sources not enumerated	3,117 99
Total	$34,705 05

Expenditures.

Butchers' meat and fish	$2,234 25
Butter and eggs	947 48
Flour, bread and meal	959 03
Milk	1,218 55
Tea and coffee	....
Potatoes and other vegetables	286 75
Groceries and provisions not enumerated	4,602 23
Drugs and medicines	474 58
Medical and surgical appliances	1,344 14
Beer, wine and spirits	180 50
Bedding, napery and general house furnishings	155 82
Brooms, brushes, mops, soap and cleaning appliances	416 43
Fuel	4,593 04
Electric light, gas, oil	937 44
Ice	176 00
Salaries and wages	9,907 10
Insurance and interest	431 61
Contingencies	291 03
Repairs, ordinary	703 01
Printing, stationery, etc	679 73
Freight and cartage	127 10
X-Ray expenses	1,674 43
Disbursements at hospital	160 00
Water supply	6 00
Total	$32,506 25
Government grant for 1923	$2,268 80

WILLETT HOSPITAL, PARIS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	9
Admitted	256
Births in Hospital	54
Total number under treatment	319
Discharged	297
Died	13
Under treatment, 30th September, 1923	9
	319

Sex.

Male	105
Female	214
	319

Revenue.

From the Province of Ontario	137 50
From the County of Brant	300 00
From Town of Paris	1,000 00
From patients themselves for maintenance and treatment	6,006 05
From endowments, investments, etc	553 62
From subscriptions, donations and bequests from private individuals	2,245 70
From other sources	225 00
Total	$10,467 87

Expenditures.

Butchers' meat	$243 61
Butter and eggs	110 47
Flour, bread and meal	91 70
Milk	111 14
Tea and coffee	45 15
Potatoes and other vegetables	225 00
Groceries and provisions not enumerated	660 02
Drugs and medicines	601 05
Medical and surgical appliances	542 10
Surgical instruments	....
Beer, wine and spirits	....
Bedding, napery and general house furnishings	610 79
Brooms, brushes, mops, soap and cleaning appliances	359 78
Fuel	653 89
Electric light, gas, oil, and candles	446 16
Water supply	....
Salaries and wages	4,884 44
Taxes and insurance	100 00
Hay and straw	....
Contingencies	287 91
Repairs, ordinary	93 43
Ice supply	25 00
Printing, postage, etc	238 32
Clothing for patients	....
Total	$10,329 96
Government grant for 1923	$1,589 00

GENERAL HOSPITAL, PARRY SOUND.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	16
Admitted	255
Number of births in Hospital	15
Total number under treatment	286
Discharged	264
Died	11
Under treatment, 30th September, 1923	11
	286

Sex.

Male	201
Female	85
	286

Revenue.

From the Province of Ontario	$1,428 00
From Town of Parry Sound	....
From paying patients	5,393 33
Subscriptions, donations, etc.	35 00
Other sources	1,479 03
Total	$8,335 36

Expenditures.

Butchers' meat	$945 58
Butter and eggs	492 43
Flour, bread and meal	253 45
Milk	67 95
Tea and coffee	....
Potatoes and other vegetables	162 76
Groceries and provisions not enumerated	201 11
	993 91
Drugs and medicines	2,224 45
Medical and surgical appliances	42 55
Surgical instruments	....
Beer, wine and spirits	280 60
Bedding, napery and general house furnishings	23 93
Brooms, brushes, mops, soap and cleaning	727 12
	246 75
Fuel	1,791 00
Electric light, gas, oil	390 79
Water supply	143 23
Ice supply	282 70
Printing, stationery, etc.	487 16
Salaries and wages	5,309 95
Contingencies	515 59
Repairs, ordinary	224 88
Taxes and insurance	543 99
Hay and straw	373 89
Clothing for patients	35 70
Telephone	88 06
Total	$16,849 00
Government grant for 1923	$1,216 00

ST. JOSEPH'S GENERAL HOSPITAL, PARRY SOUND.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	10
Admitted	274
Births in Hospital	49
Total number under treatment.	333
Discharged	312
Died	12
Under treatment, 30th September, 1923	9
	333

Sex.

Male	158
Female	175
	333

Revenue.

From the Province of Ontario	$2,354 00
From Town of Parry Sound	336 00
From other municipalities of the Province	50 00
From patients themselves for maintenance and treatment	5,489 62
From subscriptions, donations and bequests from private individuals	....
From all other sources	180 50
Total	$8,410 12

Expenditures.

Butchers' meat	$583 31
Butter and eggs	333 77
Flour, bread and meal	66 70
Milk	52 85
Tea and coffee	123 00
Potatoes and other vegetables	281 71
Groceries and provisions not enumerated	600 44
Drugs and medicines	198 06
Surgical instruments and appliances	486 00
Beer, wine and spirits	9 17
Bedding, napery and general house furnishings	746 74
Brooms, brushes, mops, soap and cleaning appliances	66 04
Fuel	753 44
Electric light, gas, oil, candles	224 77
Water supply	....
Salaries and wages	1,712 00
Ice supply	37 50
Contingencies	400 09
Repairs, ordinary	430 24
Printing and postage	83 86
Hay and straw	141 29
Taxes, insurance and interest	173 40
Clothing for patients	....
Total	$7,504 38
Government grant for 1923	$2,012 50

COTTAGE HOSPITAL, PEMBROKE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	16
Admitted	461
Births in Hospital	30
Total number under treatment.	507
Discharged	466
Died	21
Under treatment, 30th September, 1923	20
	507
Sex.	
Male	224
Female	283
	507

Revenue.	
From the Province of Ontario	$1,814 50
From the County of Renfrew	1,135 60
From Town of Pembroke	1,500 00
From other municipalities	50 00
From patients themselves	12,257 62
From subscriptions, bequests and donations of private individuals	353 50
From all other sources	373 81
Total	$17,485 93

Expenditures.	
Butchers' meat	$965 37
Butter and eggs	548 06
Flour, bread and meal	346 11
Milk	953 60
Tea and coffee	127 05
Potatoes and other vegetables	69 35
Groceries and provisions not enumerated	1,237 87
Surgical instruments	.....
Drugs and medicines	1,202 52
Medical and surgical appliances	188 60
Beer, wine and spirits	126 61
Bedding, napery and general house furnishings	466 26
Brooms, brushes, mops, soap and cleaning appliances	4 50
Fuel	1,613 91
Electric light, gas, oil and candles	443 65
Water	180 57
Hay and straw	.....
Clothing for patients, including boots and shoes	.....
Ice	91 08
Salaries and wages	6,331 83
Contingencies	1,554 85
Repairs, ordinary and additions	244 36
Taxes and insurance	297 33
Printing, stationery, etc	86 59
Hardware	.....
X-Ray	.....
Telephone	.....
Interest and exchange	.....
Farm and grounds	.....
Total	$17,080 07

Government grant for 1923..... $2,062 40

GENERAL HOSPITAL, PEMBROKE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	70
Admitted	1,338
Births in Hospital	67
Total number under treatment.	1,475
Discharged	1,368
Died	59
Under treatment, 30th September, 1923	48
	1,475
Sex.	
Male	676
Female	799
	1,475

Revenue.	
From the Province of Ontario	$7,870 80
From the County of Renfrew	3,802 95
From Town of Pembroke	1,500 00
From patients themselves for maintenance and treatment	27,577 45
From endowments, investments, etc	240 00
From subscriptions, donations and bequests from private individuals	1,741 50
From other sources	795 43
Total	$43,528 13

Expenditures.	
Butchers' meat	$1,691 56
Butter and eggs	951 56
Flour, bread and meal	1,325 06
Milk	587 33
Tea and coffee	503 07
Potatoes and other vebetables	1,788 77
Groceries and provisions not enumerated	3,888 23
Drugs and medicines	1,663 94
Medical and surgical appliances	1,195 23
Surgical instruments	.....
Beer, wine and spirits	209 47
Bedding, napery and general house furnishings	1,045 74

GENERAL HOSPITAL, PEMBROKE.—*Continued.*

Brooms, brushes, mops soap and cleaning appliances	246 28
Fuel	8,401 68
Electric light, gas, oil and candles	1,318 61
Water supply	57 00
Salaries and wages	9,645 36
Taxes and insurance	348 59
Hay and straw	351 30
Contingencies	1,399 84
Repairs, ordinary	6,573 54
Ice supply	407 30
Printing, postage, etc	228 34
Clothing for patients	317 34
Coffins and funerals	70 00
Total	$44,215 14
Government grant for 1923	$8,032 30

GENERAL HOSPITAL, PENETANGUISHENE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	1
Admitted	233
Births in Hospital	38
Total number under treatment.	272
Discharged	261
Died	10
Under treatment, 30th September, 1923	1
	272

Sex.

Male	133
Female	139
	272

Revenue.

From the Province	$576 50
From the Town of Penetang	1,500 00
From the County of Simcoe	1,000 00
From other municipalities	.....
From patients themselves for maintenance and treatment	3,245 74
From subscriptions, donations and bequests from private individuals	428 19
From other sources	668 34
Total	$7,418 77

Expenditures.

Butchers' meat	$250 50
Butter, eggs and milk	313 75
Flour, bread and meal	184 66
Milk	147 68
Tea and coffee	75 00
Potatoes and other vegetables	98 81
Groceries and provisions not enumerated	822 36
Drugs and medicines	522 61
Medical and surgical appliances	214 44
Beer, wine and spirits	49 67
Bedding, napery and general house furnishings	450 42
Brooms, brushes, mops, soap and cleaning appliances	36 14
Fuel	458 00
Light: Gas, oil and candles	226 54
Salaries and wages	2,206 00
Taxes and insurance	12 87
Contingencies	105 30
Laundry, etc	676 18
Ice	32 20
Repairs, ordinary	213 00
Printing and postage	51 00
Water	20 00
Sundries	142 08
Total	$7,309 21
Government grant for 1923	$438 20

GREAT WAR MEMORIAL HOSPITAL, PERTH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	....
Admitted	185
Number of births in the Institution	18
Total number under treatment.	203
Discharged	186
Died	8
Under treatment, 30th September, 1923	9
	203

Sex.

Male	80
Female	123
	203

Revenue.

From the Province of Ontario	....
From the Town of Perth	....
From the County of Lanark	....
From other municipalities	....
From paying patients themselves	6,777 12
Income from endowments, investments, etc	13 75

GREAT WAR MEMORIAL HOSPITAL, PERTH.—*Continued.*

From subscriptions, bequests and donations of private individuals	....
From other sources	....
Total	$6,790 87
Expenditures.	
Butchers' meat	$354 73
Butter and eggs	238 43
Flour, bread and meal	108 48
Milk	280 07
Tea and coffee	52 52
Potatoes and other vegetables	133 58
Groceries and provisions not enumerated	441 93
Drugs and medicines	462 08
Medical and surgical appliances	1,340 28
Beer, wine and spirits	....
Bedding, napery and general house furnishings	128 55
Brooms, brushes, mops, soap and cleaning appliances	137 91
Fuel	1,059 66
Electric light, gas, oil, candles	264 21
Water supply	41 48
Ice	27 30
Salaries and wages	3,764 85
Taxes and insurance	354 09
Contingencies	197 35
Repairs, ordinary	63 46
Printing, stationery, etc	413 63
Repairs and additions	....
Hay and straw cultivating grounds	....
Bank overdraft	....
Total	$9,864 59
Government grant for 1923	$1,155 00

THE NICHOLLS HOSPITAL, PETERBOROUGH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	54
Admitted	1,167
Births in Hospital	200
Total number under treatment.	1,421
Discharged	1,285
Died	83
Under treatment, 30th September, 1923	53
	1,421
Sex.	
Male	532
Female	889
	1,421
Revenue.	
From the Province of Ontario	$2,977 40
From the City of Peterborough	9,600 00
From patients themselves for maintenance and treatment	43,485 50
From property belonging to Hospital, endowments, etc	11,907 14
From subscriptions, donations and bequests from private individuals	10 00
Total	$67,980 04

Expenditures.	
Butchers' meat	$2,610 54
Butter and eggs	2,433 45
Flour, bread and meal	1,171 10
Milk	911 66
Tea and coffee	509 55
Potatoes and other vegetables	1,532 32
Groceries and provisions not enumerated	3,902 20
Drugs and medicines	967 29
Surgical instruments and appliances	5,843 50
Beer, wine and spirits	645 77
Bedding, napery and general house furnishings	3,257 48
Brooms, brushes, mops, soap and cleaning appliances	141 40
Fuel	7,971 36
Electric light, gas, oil and candles	1,171 56
Water supply	.....
Clothing for patients	.....
Ice	200 00
Salaries and wages	20,288 13
Taxes and insurance	1,130 54
Hay and straw	130 90
Contingencies	511 01
Printing, stationery, etc	900 00
Repairs, ordinary	12,989 91
Total	$69,219 67
Government grant for 1923	$2,658 70

ST. JOSEPH'S HOSPITAL, PETERBOROUGH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients

Number under treatment, 1st October, 1922	43
Admitted	762
Births in Hospital	113
Total number under treatment.	918
Discharged	837
Died	39
Under treatment, 30th September, 1923	42
	918

Sex.

Male	318
Female	600
	918

Revenue.

From the Province of Ontario	$3,108 60
From the City of Peterborough	1,574 50
From patients themselves for maintenance and treatment	18,920 16
From subscriptions, donations and bequests from private individuals	.....
From all other sources	.....
Total	$23,603 26

Expenditures.

Butchers' meat	$935 69
Butter and eggs	803 66
Flour, bread and meal	498 19
Milk	953 92
Tea and coffee	158 80
Potatoes and other vegetables	570 49
Groceries and provisions not enumerated	1,573 65
Drugs and medicines	997 40
Medical and surgical appliances	1,864 38
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	1,529 03
Brooms, brushes, mops, soap and cleaning appliances	264 14
Fuel	6,486 89
Electric light, gas, oil and power	1,150 66
Water supply	180 53
Hay and straw	.....
Clothing for sisters	.....
Salaries and wages	4,270 91
Printing, stationery, etc	232 91
Contingencies	78 32
Taxes and insurance	.....
Repairs, ordinary	889 01
Ice supply	173 85
Surgical instruments	.....
Total	$23,612 43

Government grant for 1923 ..... $4,196 70

CHARLOTTE ELEANOR ENGLEHART HOSPITAL, PETROLIA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients

Number under treatment, 1st October, 1922	12
Admitted	240
Number of births in Hospital	46
Total number under treatment.	298
Discharged	259
Died	24
Under treatment, 30th September, 1923	15
	298

Sex.

Male	93
Female	205
	298

Revenue.

From the Province of Ontario	$1,854 10
From the Town of Petrolia	1,000 00
From the County of Lambton	1,000 00
From paying patients	12,330 31
Subscriptions, donations, etc	192 64
From other sources	3,836 00
Total	$20,213 05

Expenditures.

Butchers' meat and fish	$696 23
Butter and eggs	706 36
Flour, bread and meal	.....
Milk	23 60
Tea and coffee	.....
Potatoes and other vegetables	.....
Groceries and provisions not enumerated	1,697 25
Drugs and medicines	1,221 22
Medical and Surgical appliances	456 50
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	210 81
Brooms, brushes, mops, soap and cleaning appliances	244 31
Fuel	2,983 23
Electric light, gas, oil and candles.	351 39

CHARLOTTE ELEANOR ENGLEHART HOSPITAL, PETROLIA.—*Continued.*

Water supply	.....
Hay and straw	149 97
Salaries and wages	6,067 06
Contingencies	941 18
Repairs, ordinary	561 49
Laundry	705 18
Printing, stationery and postage	329 66
Ice	115 00
Taxes and insurance	566 04
Grounds	78 30
Bank overdraft, 1922	1,109 02
X-Ray expense	....
Total	$19,213 80
Government grant for 1923	$704 80

PRINCE EDWARD COUNTY HOSPITAL, PICTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	3
Admitted	209
Births in Hospital	23
Total number under treatment.	235
Discharged	218
Died	12
Under treatment, 30th September, 1923	5
	235

Sex.

Male	109
Female	126
	235

Revenue.

From the Province of Ontario	$1,040 50
From the Town of Picton	.....
From County of Prince Edward	1,500 00
From patients for maintenance and treatment	6,893 24
From subscriptions, donations and bequests from private individuals	899 96
From all other sources	801 09
Total	$11,134 79

Expenditures.

Butchers' meat	$443 09
Butter and eggs	288 19
Flour, bread and meal	105 55
Milk	202 40
Tea and coffee	97 26
Potatoes and other vegetables	49 30
Groceries and provisions not enumerated	659 36
Drugs and medicines	425 03
Medical and surgical appliances	488 27
Surgical instruments	.....
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	1,117 12
Brooms, brushes, mops, soap and cleaning appliances	.....
Fuel	1,288 50
Light: Gas, oil, candles, and water	169 23
Ice supply	38 42
Salaries and wages	3,499 50
Stationery, printing, postage, etc.	440 22
Contingencies	.....
Repairs, ordinary	266 95
Laundry	.....
Taxes and insurance	154 60
Hay and straw	.....
Repairs and additions	.....
Total	$9,729 99
Government grant for 1923	$821 10

GENERAL HOSPITAL, PORT ARTHUR.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	39
Admitted	761
Births in Hospital	79
Total number under treatment.	879
Discharged	825
Died	23
Under treatment, 30th September, 1923	31
	879

GENERAL HOSPITAL, PORT ARTHUR.—*Continued.*

Sex.

Male	474
Female	405
	879

Revenue.

From the Province of Ontario	$2,447 30
From the City of Port Arthur	5,030 82
From patients themselves for maintenance and treatment	23,432 76
From subscriptions, donations and bequests from private individuals	.....
From other sources	4,661 74
Total	$35,572 62

Expenditures.

Butchers' meat	$1,875 20
Butter and eggs	1,262 80
Flour, bread and meal	676 42
Milk	1,315 95
Tea and coffee	347 24
Potatoes and other vegetables	615 06
Groceries and provisions not enumerated	1,676 88
Drugs and medicines	865 86
Surgical and medical appliances	1,159 91
Beer, wine and spirits	204 56
Bedding, napery and general house furnishings	1,072 44
Fuel	2,963 85
Brooms, brushes, mops, soap and cleaning appliances	551 16
Electric light, gas, oil, candles	634 12
Water supply	336 76
Ice	323 70
Salaries and wages	12,056 42
Taxes and insurance	670 02
Stationery, printing, etc	340 71
Contingencies	529 36
Repairs, ordinary	823 67
Audit fee	150 00
Clothing for patients	227 95
Other expenses	4,510 46
Total	$35,190 50
Government grant for 1923	$3,703 50

ST. JOSEPH'S HOSPITAL, PORT ARTHUR.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	47
Admitted	1,193
Births in Hospital	130
Total number under treatment	1,370
Discharged	1,285
Died	42
Under treatment, 30th September, 1923	43
	1,370

Sex.

Male	704
Female	666
	1,370

Revenue.

From the Province of Ontario	$4,430 60
From the City of Port Arthur	5,100 00
From patients themselves for maintenance and treatment	29,402 41
From subscriptions, donations and bequests from private individuals	389 50
From other sources	7,412 50
Income from property	300 00
Total	$47,035 01

Expenditures.

Butchers' meat and fish	$3,412 38
Butter and eggs	2,608 74
Flour, bread and meal	2,048 18
Milk	1,643 03
Tea and coffee	213 97
Potatoes and other vegetables	404 20
Groceries and provisions not enumerated	2,936 92
Drugs and medicines	1,393 23
Surgical and medical appliances	3,523 12
Beer, wine and spirits	62 22
Bedding, napery and general house furnishings	4,606 01
Fuel	7,509 66
Brooms, brushes, mops, soap and cleaning appliances	504 82
Electric light, gas, oil and power	236 12
Water supply	149 60
Ice	233 89
Salaries and wages	5,837 55
Taxes and insurance	762 44
Stationery, printing, etc	350 86
Contingencies	740 36
Repairs, ordinary	2,588 51
Hay and straw	....
Clothing for patients	....
X-Ray machine	....
Insurance and interest	....
Total	$41,765 81
Government grant for 1923	$5,706 20

GENERAL HOSPITAL, PORT HOPE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	14
Admitted	260
Births in Hospital	48
Total number under treatment	322
Discharged	289
Died	20
Under treatment, 30th September, 1923	13
	322

Sex.

Male	134
Female	188
	322

Revenue.

From the Province of Ontario	$2,450 10
From City of Port Hope	500 00
From County of Durham	750 00
From other municipalities	76 00
From endowments, investments, etc.	1,083 54
From patients themselves for maintenance and treatment	8,954 24
From subscriptions, donations and bequests from private individuals	432 45
From other sources	103 95
Total	$14,350 28

Expenditures.

Butchers' meat	$703 76
Butter and eggs	483 21
Bread	245 92
Milk	150 00
Tea and coffee	60 31
Potatoes and other vegetables	171 78
Groceries and other provisions not enumerated	788 01
Drugs and medicines, medical and surgical appliances	398 33
Bedding, napery and general house furnishings	551 58
Brooms, brushes, mops, soap and cleaning appliances	165 98
Fuel	1,985 21
Light: gas, oil and candles	207 54
Salaries and wages	6,395 30
Insurance and taxes	284 30
Contingencies	419 94
Repairs, ordinary	186 53
Ice	50 35
Water	111 92
Printing, stationery, postage	112 27
Hay and straw	109 44
Beer, wine and spirits	....
Surgical instruments	451 96
Total	$14,033 64
Government grant for 1923	$1,500 50

VICTORIA GENERAL HOSPITAL, RENFREW.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients

Number under treatment, 1st October, 1922	26
Admitted	449
Births in Hospital	55
Total number under treatment	530
Discharged	495
Died	26
Under treatment, 30th September, 1923	9
	530

Sex.

Male	250
Female	280
	530

Revenue.

From the Province of Ontario	$1,752 00
From the Town of Renfrew	750 30
From the County of Renfrew	....
From other municipalities	73 00
From patients for maintenance and treatment	13,707 52
From subscriptions, donations and bequests from private individuals	353 75
Total	$16,636 57

Expenditures.

Butchers' meat	$915 26
Butter and eggs	649 94
Flour, bread and meal	423 06
Milk	622 45
Tea and coffee	148 26
Potatoes and other vegetables	33 55
Groceries and provisions not enumerated	1,040 17
Medical and surgical appliances	776 00
Surgical instruments	5 30
Drugs and medicines	434 99
Bedding, napery and general house furnishings	234 51
Fuel	1,359 19

VICTORIA GENERAL HOSPITAL, RENFREW.—*Continued.*

Electric light, gas, oil, candles...	269 40	Clothing for patients.....	101 10
Water supply.....	24 50	Beer, wine and spirits.....	111 17
Ice supply.....	70 00	Taxes and insurance.....	218 81
Salaries and wages.....	5,624 85	Other expenses.....	880 14
Contingencies.....	702 18		
Repairs, ordinary.....	230 42	Total.....	$15,011 32
Brooms, brushes and cleaning...	136 07	Government grant for 1923.....	$1,529 00

GENERAL AND MARINE HOSPITAL, ST. CATHARINES.

The following summaries show the operations of the Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1922.....	57
Admitted.....	1,054
Births in Hospital.....	296
Total number under treatment.	1,407
Discharged.....	1,272
Died.....	79
Under treatment, 30th September, 1923.....	56
	1,407

Sex.

Male.....	589
Female.....	818
	1,407

Revenue.

From the Province of Ontario...	$2,013 60
From the City of St. Catharines..	16,000 00
From the County of Lincoln.....	3,923 00
From other municipalities.....	....
From patients themselves for maintenance and treatment...	35,573 36
From endowments, investments, or other property belonging to the Hospital.....	1,342 15
From subscriptions, bequests and donations of private persons...	9,225 01
From all other sources not above enumerated.....	6,952 50
Total.....	$75,029 62

Expenditures.

Butchers' meat and fish.....	$4,546 37
Flour, bread and meal.....	2,594 06
Butter and eggs.....	1,067 41
Milk.....	2,502 97
Tea and coffee.....	596 80
Potatoes and other vegetables and fruit.....	1,470 69
Groceries and provisions not enumerated.....	3,730 96
Drugs and medicines.....	2,575 47
Medical and surgical appliances..	3,356 48
Surgical instruments.....	635 87
Beer, wine and spirits.....	258 00
Bedding, napery and general house furnishings.....	3,056 00
Brooms, brushes, mops, soap and cleaning appliances.....	1,256 94
Fuel.....	5,794 93
Electric light, gas, oil, candles...	1,296 88
Water supply.....	50 40
Ice.....	526 25
Salaries and wages.....	14,899 68
Taxes and insurance.....	275 95
Contingencies.....	2,923 00
Repairs, ordinary.....	3,316 79
Printing, stationery, etc.....	865 09
Clothing for patients.....	....
Transfer to capital.....	9,000 00
Overdraft, 1922.....	3,689 90
Total.....	$70,286 89
Government grant for 1923.....	$2,729 90

AMASA WOOD HOSPITAL, ST. THOMAS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922.....	32
Admitted.....	820
Births in the Hospital.....	152
Total number under treatment.	1,004
Discharged.....	898
Died.....	70
Under treatment, 30th September, 1923.....	36
	1,004

AMASA WOOD HOSPITAL, ST. THOMAS.—*Continued.*

Sex.

Male	419
Female	585
	1,004

Revenue.

From the Province of Ontario	$2,862 10
From the City of St. Thomas	1,000 00
From paying patients themselves	27,216 97
Other sources	2,116 03
Total	$33,195 10

Expenditures.

Butchers' meat	$1,496 26
Butter and eggs	1,744 31
Flour, bread and meal	620 46
Milk	1,460 70
Tea and coffee	279 43
Potatoes and other vegetables	540 40
Groceries and other provisions not enumerated	3,267 73
Drugs and medicines	3,086 49
Medical and surgical appliances	181 50
Surgical instruments	123 20
Beer, wine and spirits	484 29
Bedding, etc	1,289 63
Brooms, brushes, mops, soap and cleaning appliances and laundry	2,100 60
Fuel	2,692 67
Electric light, gas, oil, candles	1,194 57
Water supply	262 94
Ice	239 75
Ambulance expenses	253 55
Salaries and wages	9,843 87
Taxes and insurance	352 55
Contingencies	1,843 36
Repairs, ordinary	193 58
Printing, stationery, etc	250 80
Total	$33,802 63
Government grant for 1923	$2,593 00

GENERAL HOSPITAL, SARNIA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	41
Admitted	816
Births in Hospital	144
Total number under treatment	1,001
Discharged	893
Died	73
Under treatment, 30th September, 1923	35
	1,001

Sex.

Male	418
Female	583
	1,001

Revenue.

From the Province of Ontario	$2,074 10
From the Town of Sarnia	2,500 00
From the County of Lambton	1,000 00
From patients themselves for maintenance and treatment	33,722 70
From property belonging to the Hospital	1,666 52
From subscriptions, donations and bequests from private individuals	50 00
From all other sources	124 22
Total	$41,137 54

Expenditures.

Butchers' meat	$2,407 54
Butter and eggs	1,602 98
Flour, bread and meal	622 69
Milk	1,231 26
Tea and coffee	....
Potatoes and other vegetables	861 75
Groceries and provisions not enumerated	2,419 97
Drugs and medicines	539 66
Surgical instruments and appliances	3,759 19
Beer, wine and spirits	38 37
Bedding, napery and general house furnishings	1,653 99
Fuel	5,719 28
Electric light, gas, oil and candles	1,059 24
Laundry, etc	3,369 42
Ice	633 99
Salaries and wages	11,252 90
Insurance	82 00
Contingencies	572 21
Repairs, ordinary	1,684 06
Stationery and printing	325 05
Nurses' furnishings	200 73
Nurses' home	727 19
Interest and exchange	....
Cleaning appliances	273 08
Total	$41,036 50
Government grant for 1923	$2,609 40

PLUMMER MEMORIAL HOSPITAL, SAULT STE. MARIE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	11
Admitted	495
Births in Hospital	38
Total number under treatment	544
Discharged	510
Died	18
Under treatment, 30th September, 1923	16
	544

Sex.

Male	304
Female	240
	544

Revenue.

From the Province of Ontario	$3,353 00
From the City of Sault Ste. Marie	....
From other municipalities	....
From patients themselves for maintenance and treatment	11,773 70
Subscriptions, donations and bequests of private individuals	117 80
From other sources not enumerated	5,754 24
Total	$20,998 74

Expenditures.

Butchers' meat	$915 79
Butter and eggs	478 69
Flour, bread and meal	432 69
Milk	178 46
Tea and coffee	257 30
Potatoes, vegetables and fruit	301 10
Groceries and provisions not enumerated	1,642 12
Drugs and medicines	585 24
Medical and surgical appliances	811 19
Beer, wine and spirits	....
Bedding, napery and general house furnishings	350 87
Brooms, brushes, mops, soap and cleaning appliances	167 25
Fuel	1,406 49
Electric light, gas, oil and candles	1,125 07
Water supply	167 34
Clothing for patients, including boots and shoes	....
Ice	61 60
Salaries and wages	6,784 25
Contingencies	890 83
Repairs, ordinary	613 24
Taxes and insurance	597 48
Printing, stationery, etc.	136 68
Hay and straw	338 48
Surgical instruments	43 65
Total	$18,285 81
Government grant for 1923	$3,049 90

GENERAL HOSPITAL, SAULT STE. MARIE.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	35
Admitted	840
Births in Hospital	77
Total number under treatment	952
Discharged	879
Died	35
Under treatment, 30th September, 1923	38
	952

Sex.

Male	489
Female	463
	952

Revenue.

From the Province of Ontario	$3,701 30
From the City of Sault Ste. Marie	476 00
From paying patients themselves	25,543 75
Other sources	6,602 70
Income from endowments and property	....
Total	$36,323 75

Expenditures.

Butchers' meat	$2,223 01
Butter and eggs	1,496 81
Flour, bread and meal	973 72
Milk	1,599 16
Tea and coffee	441 90
Potatoes and other vegetables	572 73
Groceries and other provisions not enumerated	2,268 78
Drugs and medicines	1,072 60
Medical and surgical appliances	1,650 68
Surgical instruments	....
Beer, wine and spirits	263 49
Bedding, etc.	1,004 96
Brooms, brushes, mops, soap and cleaning appliances	374 11
Fuel	4,086 36
Electric light, gas, oil, candles	269 71
Water supply	278 99
Ice	230 25
Ambulance expenses	....
Salaries and wages	6,764 00
Taxes and insurance	655 09
Contingencies	....
Repairs, ordinary	4,442 45
Printing, stationery, etc.	652 26
Rent and telephone	....
Hay and straw	....
Clothing for patients	1,118 99
Total	$32,745 90
Government grant for 1923	$4,489 10

GENERAL HOSPITAL, SIOUX LOOK-OUT.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	274
Births in Hospital	11
Total number under treatment.	289
Discharged	270
Died	8
Under treatment, 30th September, 1923	11
	289

Sex.

Male	204
Female	85
	289

Revenue

From the Province of Ontario	....
From the Town of Sioux Look-Out	....
From the County of	....
From other municipalities	....
From patients themselves for maintenance and treatment	6,384 89
From subscriptions, donations and bequests from private individuals	....
From other sources	....
Total	$6,384 89

Expenditures.

Butchers' meat	$323 35
Butter and eggs	364 00
Flour, bread and meal	122 35
Milk	254 72
Tea and coffee	152 00
Potatoes and other vegetables	136 00
Groceries and provisions not enumerated	1,027 89
Drugs and medicines	246 26
Surgical instruments and appliances	355 34
Beer, wine and spirits	50 92
Bedding, napery and general house furnishings	102 40
Booms, brushes, mops, soap and cleaning appliances	28 65
Fuel	40 80
Light: electric, gas, oil and candles and X-ray	....
Water supply	....
Ice	....
Salaries and wages	3,885 07
Printing, stationery, etc	41 39
Contingencies	472 69
Repairs, ordinary and additions	100 10
Taxes and insurance	292 00
Laundry	.....
Hay and straw	....
Telephone	....
Total	$7,995 93
Government grant for 1923	$1,551 60

PUBLIC HOSPITAL, SMITH'S FALLS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	26
Admitted	528
Births in Hospital	84
Total number under treatment.	638
Discharged	369
Died	33
Under treatment, 30th September, 1923	36
	638

Sex.

Male	240
Female	398
	638

Revenue.

From the Province of Ontario	$4,491 00
From the Town of Smith's Falls	1,200 00
From patients themselves for maintenance and treatment	21,449 05
From subscriptions, donations and bequests from private individuals	528 80
From other sources	4,093 29
From endowments, investments, etc	1,735 84
Total	$33,497 98

Expenditures.

Butchers' meat	$1,337 82
Butter and eggs	1,396 28
Flour, bread and meal	534 33
Milk	884 30
Potatoes and other vegetables	1,175 71
Groceries and provisions not enumerated	844 27
Tea and coffee	364 30
Drugs and medicines	957 43
Medical and surgical appliances	1,454 25
Surgical instruments	....
Bedding, napery and general house furnishings	1,081 22
Brooms, brushes, mops, soap and cleaning appliances	10 85
Fuel; light: gas, oil and power	3,744 58
Ice	....
Salaries and wages	7,872 00
Taxes and insurance	262 93
Contingencies	322 08
Repairs, ordinary	1,332 56
Printing, stationery, etc	182 49
Hay and straw	96 99
Beer, wine and spirits	681 91
Water supply	180 00
X-ray	135 11
Laundry	2,363 32
Grounds	276 15
Total	$27,490 88
Government grant for 1923	$2,569 90

ST. FRANCIS' HOSPITAL, SMITH'S FALLS.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	24
Admitted	432
Births in Hospital	44
Total number under treatment.	500
Discharged	446
Died	29
Under treatment, 30th September, 1923	25
	500

Sex.

Male	183
Female	317
	500

Revenue.

From the Province of Ontario	$2,125 90
From the Town of Smith's Falls, for patients' maintenance	800 00
From the County of Lanark	....
From paying patients themselves.	14,795 98
From subscriptions, bequests and donations of private individuals	2,109 04
From other sources	3,797 00
	$23,627 92

Expenditures.

Butchers' meat	$2,207 30
Butter and eggs	966 84
Flour, bread and meal	1,006 00
Milk	882 42
Tea and coffee	601 13
Potatoes and other vegetables	586 36
Groceries and provisions not enumerated	1,905 94
Drugs and medicines	560 15
Medical and surgical appliances	939 42
Surgical instruments	....
Alcohol	353 50
Bedding, napery and general house furnishings	1,869 79
Brooms, brushes, mops, soap and cleaning appliances	362 50
Fuel	5,041 59
Electric light, motor service	952 65
Water	25 00
Ice	90 00
Salaries and wages	1,849 50
Taxes, insurance and interest	742 00
Stationery, postage, etc.	271 23
Repairs, ordinary	458 17
Contingencies	525 24
Clothing, including boots	1,098 53
Total	$23,295 26
Government grant for 1923	$1,734 90

GENERAL HOSPITAL, STRATFORD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	35
Admitted	1,002
Number of births during the year.	145
Total number under treatment.	1,182
Discharged	1,077
Died	67
Under treatment, 30th September, 1923	38
	1,182

Sex.

Male	451
Female	731
	1,182

Revenue.

Received from the Province of Ontario	$2,442 80
From the City of Stratford	4,000 00
From the County of Perth	1,500 00
From other municipalities of the Province	1,300 00
From paying patients	37,768 78
Income from endowments, investments, etc.	252 04
Subscriptions, donations, etc.	3,965 82
From other sources	565 01
Total	$51,794 45

Expenditures.

Butchers' meat	$2,846 30
Butter and eggs	1,881 92
Flour, bread and meal	765 58
Milk	1,689 21
Tea and coffee	570 50
Potatoes and other vegetables	1,071 17
Groceries and provisions not enumerated	3,820 32
Drugs and medicines	986 76
Medical and surgical appliances	4,305 22
Surgical instruments	53 77
Beer, wine and spirits	263 16
Bedding, napery and general house furnishings	2,453 86
Brooms, brushes, mops, etc.	1,134 66
Fuel	4,888 31
Electric light, gas, oil, candles	2,073 41
Water supply	219 24
Ice	314 46
Salaries and wages	14,227 13
Taxes and insurance	953 09
Contingencies	1,960 76
Repairs, ordinary	3,189 02
Postage, etc.	325 96
Poultry and grain for same	210 92
X-ray supplies, etc.	551 27
Elevator expenses	2,866 30
Building account	....
Total	$53,622 33
Government grant for 1923	$3,292 10

GENERAL HOSPITAL, STRATHROY.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	21
Admitted	265
Number of births in the institution during the year	38
Total number under treatment	324
Discharged	286
Died	16
Under treatment, 30th September, 1923	22
	324

Sex.

Male	118
Female	206
	324

Revenue.

Received from the Province of Ontario	$2,012 70
From the Town of Strathroy	....
From the County of Middlesex	4,287 50
From paying patients	12,708 13
Subscriptions, donations, etc	31 00
From source not enumerated	....
From Dominion Government	....
Total	$19,039 33

Expenditures.

Butchers' meat	$1,088 85
Butter and eggs	522 50
Flour, bread and meal	291 82
Milk	541 48
Tea and coffee	143 82
Potatoes and other vegetables	....
Groceries and provisions not enumerated	1,129 97
Drugs and medicines	933 56
Medical and surgical appliances	197 57
Beer, wine and spirits	....
Bedding, napery and general house furnishings	259 99
Brooms, brushes, mops, etc	343 22
Fuel	886 88
Electric light, gas, oil, candles	134 10
Water supply	....
Ice	....
Salaries and wages	4,636 11
Contingencies	1,602 84
Repairs, ordinary	944 18
Taxes and insurance	123 75
Printing, stationery, etc	80 76
Surgical instruments	24 44
Hay and straw	....
Clothing for patients	....
Building Fund	3,054 00
Total	$16,939 84
Government grant for 1923	$2,515 90

ST. JOSEPH'S HOSPITAL, SUDBURY.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	80
Number admitted	1,935
Births in Hospital	63
Total number under treatment	2,078
Discharged	1,933
Died	75
Remaining under treatment on the 30th September, 1923	70
	2,078

Sex.

Male	1,300
Female	778
	2,078

Revenue.

From the Province of Ontario	$12,948 64
From paying patients themselves	56,908 05
Subscriptions, donations and bequests	868 40
Town of Sudbury	917 50
From all other sources not above enumerated	3,713 16
Total	$75,355 75

Expenditures.

Butchers' meat	$6,264 04
Butter and eggs	2,438 88
Flour, bread and meal	1,550 00
Milk	3,154 00
Tea and coffee	860 25
Potatoes and other vegetables	1,200 00
Groceries and provisions not enumerated	4,592 68
Drugs and medicines, Medical and surgical appliances	3,889 09
Beer, wine and spirits	363 62
Bedding, napery and general house furnishings	4,041 12
Brooms, brushes, mops, soap and cleaning appliances	1,284 37
Fuel	9,634 86
Electric light, gas, and oil	1,374 29
Hay and straw	23 82
Clothing for patients	1,216 83
Ice	....
Salaries and wages	6,720 25
Contingencies	1,927 35
Repairs, ordinary	8,487 35
Taxes and insurance	797 41
Printing and stationery	922 55
Surgical instruments	....
Coffins and funerals	70 00
Water supply	855 69
Total	$61,668 45
Government grant for 1923	$14,762 70

GENERAL HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment in all departments of the Hospital, 1st October, 1922	502
Admitted	10,918
Births in the Hospital	1,292
Total number under treatment	12,712
Discharges, including infants	11,428
Died	716
Under treatment, 30th September, 1923	568
Total	12,712

Sex.

Male	5,476
Female	7,236
	12,712

Revenue.

From the Province of Ontario	$74,478 00
From the City of Toronto, in payment of patients' maintenance	124,856 32
From the County of York, in payment of patients' maintenance	.....
From other municipalities of the Province	.....
From paying patients themselves	622,503 96
Income from property belonging to the Hospital Trust	66,710 60
Subscriptions, donations, and bequests of private individuals	9,193 41
From all other sources not above enumerated	17,250 14
From Dominion Government	.....
Deficit, 30th September, 1923	83,917 11
Total	$998,909 54

Expenditures.

Butchers' meat, poultry and fish	$61,289 90
Butter, eggs and cheese	32,399 09
Flour, bread and meal	12,611 94
Milk and cream	32,452 85
Tea, coffee and cocoa	8,483 92
Potatoes and other vegetables	19,953 07
Groceries and provisions not enumerated, and fruit	41,878 88
Drugs and medicines	34,521 88
Medical and surgical appliances, bandages, etc	45,204 19
Surgical instruments, ordinary, etc	16,673 20
Beer, wine and spirits	2,819 61
Bedding, napery and general house furnishings, patients' clothing	46,200 48
Laundry, brooms, brushes, mops, soap and cleaning appliances	14,823 02
Fuel, power-house and wages	68,094 10
Light: Gas, oil, and electric	15,638 04
Water supply	9,078 50
Nurses' uniforms and medals	1,295 01
Gardens and grounds	335 53
Salaries and wages	392,387 31
Contingencies, miscellaneous expenses	13,430 57
Repairs, ordinary	28,061 68
Telephones	4,110 39
Interest on debts and insurance	.....
Printing, postage, stationery, annual report, advertising	10,784 34
Taxes and insurance	5,107 84
Nurses' Home	.....
Rent of land	3,028 90
Depreciation of buildings and equipment	60,976 80
Total	$981,641 04
Government grant for 1923	$67,995 30

GRACE HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment in the Hospital, 1st October, 1922	112
Admitted	2,367
Births in Hospital	515
Total number under treatment	2,994
Discharges, including infants	2,765
Died	114
Under treatment, 30th September, 1923	115
	2,994

Sex.

Male	1,043
Female	1,951
	2,994

Revenue.

From the Government of Ontario	$11,021 50
From the City of Toronto, in payment of patients' maintenance or as a grant	18,191 94
From the County of York	1,857 00
From other municipalities	226 50
From paying patients themselves	104,431 05
Income from endowments, etc	2,714 77
Subscriptions, donations and bequests of private individuals	.....
From all sources not above enumerated	7,328 75
Debit balance	21,969 68
Total	$167,741 19

GRACE HOSPITAL, TORONTO—*Continued.*

Expenditures.

Butchers' meat	9,954 43
Butter and eggs	4,593 57
Flour, bread and meal	2,263 61
Milk	5,105 01
Tea and coffee	1,149 94
Potatoes and other vegetables	3,429 51
Groceries and other provisions not enumerated	6,717 98
Drugs and medicines	7,167 24
Medical and surgical appliances	16,097 18
Surgical instruments	1,151 16
Beer, wine and spirits	124 91
Bedding, napery and general house furnishings	11,677 50
Brooms, brushes, mops, soap and cleaning appliances	3,743 36
Fuel	10,224 33
Light: electric, oil and candles	3,007 05
Water supply	1,102 67
Ice	931 47
Salaries and wages	50,926 10
Taxes and insurance	459 37
Contingencies	8,229 57
Repairs, ordinary	7,541 87
Advertising, stationery, etc	2,401 76
Clothing for patients	327 22
Overdraft, 1922	6,722 26
Interest on mortgage	2,692 12
Total	$167,741 19
Government grant for 1923	$10,724 60

HOSPITAL FOR SICK CHILDREN, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Under treatment, 1st October, 1922	260
Admitted	6,086
Total number under treatment	6,346
Discharged	5,592
Died	528
Under treatment, 30th September, 1923	226
	6,346

Sex.

Male	3,564
Female	2,782
	6,346

Revenue.

From the Province of Ontario	$44,544 50
From the City of Toronto	92,727 86
From municipalities	19,797 52
From patients themselves for maintenance and treatment	68,694 30
From property belonging to Hospital	7,012 91
From subscriptions, donations and bequests from private individuals	49,555 26
From all other sources not enumerated	18,863 90
Total	$301,196 25

Expenditures.

Butchers' meat, game and fish	$10,806 63
Butter and eggs	9,020 46
Flour, bread and meal	4,052 92
Milk	9,924 24
Tea and coffee	1,227 90
Potatoes and other vegetables	7,266 65
Groceries and provisions not enumerated	8,787 45
Drugs and medicines; Medical and surgical appliances and surgical instruments	36,872 06
Bedding, napery and general house furnishings	11,231 68
Brooms, brushes, mops, soap and cleaning appliances	5,353 37
Fuel	26,142 34
Light: Electric, gas, oil, candles	6,859 25
Water supply	3,552 04
Clothing for patients, including boots, shoes and linen	2,742 32
Ice	782 48
Salaries and wages	181,701 76
Insurance and taxes	2,523 91
Contingencies	12,608 24
Repairs, ordinary	12,536 04
Printing, stationery, etc	4,724 99
Total	$358,716 73
Government grant for 1923	$41,080 30

THE ORTHOPEDIC HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	22
Admitted	521
Total number under treatment	543
Discharges	528
Died	4
Under treatment, 30th September, 1923	11
	543

THE ORTHOPEDIC HOSPITAL, TORONTO.—*Continued.*

Sex.

Male	229
Female	314
	543

Revenue.

From the Government of Ontario	$961 00
Income from endowments, etc. or other property belonging to the Hospital	78 00
From paying patients themselves	20,536 82
Subscriptions, donations and bequests of private individuals	2,721 06
From all other sources not above enumerated	15,335 86
Total	$39,632 74

Expenditures.

Butchers' meat	$1,961 79
Butter and eggs	1,245 47
Flour, bread and meal	325 78
Milk	862 06
Tea and coffee	229 38
Potatoes and other vegetables	774 99
Groceries and provisions not enumerated	1,732 10
Drugs and medicines	569 18
Medical and surgical appliances, surgical instruments	772 60
Bedding, napery and general house furnishings	168 28
Brooms, brushes, mops, soap and cleaning appliances	365 86
Fuel	2,351 91
Electric light, gas, oil and candles	516 26
Water supply	119 66
Ice	309 20
Salaries and wages	10,399 93
Taxes and insurance	543 63
Repairs, ordinary	1,093 27
Gymnasium and sundries	....
Sundries and material	....
Clothing for patients	....
Contingencies	2,475 00
Beer, wine and spirits	....
Printing and postage	559 17
Total	$27,374 52
Government grant for 1923	$1,221 70

ST. JOHN'S HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	38
Admitted	1,143
Number of births	1
Total number under treatment.	1,182
Discharged	1,126
Died	19
Under treatment, 30th September, 1923	37
	1,182

Sex.

Male	163
Female	1,019
	1,182

Revenue.

From the Province of Ontario	$6,514 70
From the City of Toronto	2,573 70
From other municipalities	70 50
From patients themselves for maintenance and treatment	57,534 98
From subscriptions, donations and bequests from private individuals	1,797 49
From other sources	3,124 06
Total	$71,615 43

Expenditures.

Butchers' meat	$5,869 32
Butter and eggs	3,523 11
Bread	1,576 43
Milk	2,917 22
Tea and coffee	1,035 29
Potatoes and other vegetables	2,919 02
Groceries and provisions not enumerated	3,610 19
Drugs and medicines	2,492 30
Medical and surgical appliances	2,395 29
Surgical instruments	170 10
Beer, wine and spirits	286 50
Bedding, napery and general house furnishings	2,120 12
Brooms, brushes, mops, soap and cleaning appliances	1,100 28
Fuel	1,000 00
Electric light, gas, oil, candles	4,006 47
Salaries and wages	21,310 70
Insurance and taxes	448 93
Contingencies	1,781 28
Repairs, ordinary, and additions	7,938 50
Ice supply	366 68
Printing, stationery, etc	659 83
Water supply	381 53
Total	$67,909 09
Government grant for 1923	$7,378 20

ST. JOSEPH'S HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients

Number under treatment, 1st October, 1922	53
Admitted	1,317
Number of births	148
Total number under treatment	1,518
Discharged	1,385
Died	73
Under treatment, 30th September, 1923	60
	1,518

Sex.

Male	660
Female	858
	1,518

Revenue.

From the Province of Ontario	$11,206 30
From the City of Toronto	13,886 50
From other municipalities	2,658 50
From patients themselves for maintenance and treatment	45,300 60
From subscriptions, donations and bequests from private individuals	.....
From other sources	1,911 00
Total	$74,962 90

Expenditures.

Butchers' meat	$4,275 00
Butter and eggs	2,677 10
Bread	1,919 38
Milk	2,856 53
Tea and coffee	1,378 62
Potatoes and other vegetables	2,933 29
Groceries and provisions not enumerated	3,066 81
Drugs and medicines	889 87
Beer, wine and spirits	399 21
Bedding, napery and general house furnishings	2,182 93
Brooms, brushes, mops, soap and cleaning appliances	524 86
Fuel	6,768 42
Electric light, gas, oil, candles	958 92
Salaries and wages	30,512 70
Insurance and taxes	232 23
Contingencies	1,372 58
Repairs, ordinary, and additions	382 99
Ice supply	334 25
Printing, stationery, etc	1,433 08
Water supply	372 08
Medical and surgical appliances	3,435 09
Surgical instruments	491 87
Depreciation	11,031 42
Total	$80,429 23
Government grant for 1923	$12,006 30

ST. MICHAEL'S HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	255
Admitted	4,346
Births in Hospital	454
Total number under treatment	5,055
Discharged	4,553
Died	274
Under treatment, 30th September, 1923	228
	5,055

Sex.

Male	2,335
Female	2,720
	5,055

Revenue.

From the Government of Ontario	$38,820 50
From the City of Toronto in payment of patients' maintenance	73,780 72
From the County of York	2,158 64
From other municipalities	168 00
From paying patients themselves	157,025 98
Subscriptions, donations and bequests of private individuals	81 00
From all other sources not above enumerated	2,953 81
Total	$274,988 65

Expenditures.

Butchers' meat, poultry and fish	$20,836 30
Butter and eggs	13,961 91

ST. MICHAEL'S HOSPITAL, TORONTO.—*Continued.*

Flour, bread and meal	4,370 65
Milk	12,371 56
Tea and coffee	3,534 06
Potatoes, other vegetables and fruit	15,963 24
Groceries and provisions not enumerated	12,996 49
Drugs and medicines	9,823 07
Medical and surgical appliances / Surgical instruments	14,225 95
Beer, wine and spirits	2,119 28
Bedding, napery and general house furnishings	7,436 53
Brooms, brushes, mops, soap and cleaning appliances	2,855 89
Fuel	19,710 65
Electric light, gas, oil, candles	7,426 84
Water supply	2,613 72
X-ray	.....
Salaries and wages	102,824 35
Taxes and insurance	805 28
Laundry	2,275 45
Repairs, ordinary	15,440 65
Telephone service	.....
Advertising, printing, stationery, etc.	6,204 65
Clothing, for patients, including boots and shoes	375 61
Interest	3,920 71
Ice	404 78
Depreciation	30,602 48
Total	$313,100 11
Government grant for 1923	$32,188 90

SALVATION ARMY WOMAN'S HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	34
Number admitted	375
Births in Hospital	349
Total number under treatment	758
Discharged	694
Died	39
Under treatment, 30th September, 1923	25
	758

Sex.

Male	212
Female	546
	758

Revenue.

From the Province of Ontario	$2,389 00
From the City of Toronto	....
From the County of York	....
From other municipalities of the Province	....
From paying patients	13,675 66
From property belonging to the Hospital	....
From subscriptions, bequests and donations from private individuals	90 00
From other sources not enumerated	2,766 75
Total	$18,921 41

Expenditures.

Butchers' meat	$997 98
Butter and eggs	627 63
Flour, bread and meal	590 14
Milk	701 52
Tea and coffee	224 66
Potatoes and other vegetables	256 29
Groceries and provisions not enumerated	1,410 91
Drugs, medicines and medical and surgical appliances	578 03
Bedding, napery and general house furnishings	1,448 80
Brooms, brushes, mops, soap and cleaning appliances	223 68
Fuel / Electric light, gas, oil, etc.	2,047 53
Water supply	70 24
Ice supply	50 00
Salaries and wages	7,192 65
Contingencies	2,061 58
Printing, stationery, etc.	110 17
Repairs, ordinary	183 79
Coffins	55 00
General expenses	2,006 63
Total	$20,837 23
Government grant for 1923	$3,191 90

TORONTO HOSPITAL FOR INCURABLES.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	232
Admitted	67
Births in Hospital	....
Total number under treatment	299
Discharged	5
Died	67
Under treatment, 30th September, 1923	227
	299

Sex.

Male	128
Female	171
	299

Revenue.

From the Province of Ontario	$40,791 50
From the City of Toronto	84,723 00
From the patients for maintenance and treatment	24,574 75
From subscriptions, donations and bequests from private individuals	5,372 88
From other sources	7,543 85
From other municipalities	5,865 50
Bank overdraft and cheques outstanding	6,641 43
Total	$175,512 91

Expenditures.

Butchers' meat	$10,008 35
Butter and eggs	9,471 95
Flour, bread and meal	3,456 03
Milk	5,171 40
Tea and coffee	2,437 15
Potatoes and other vegetables	4,399 06
Groceries and provisions not enumerated	10,065 32
Drugs and medicines	2,630 56
Medical and surgical appliances and instruments	3,508 38
Telephones	.....
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	11,079 68
Brooms, brushes, mops, soap and cleaning appliances	5,346 91
Fuel	20,128 01
Light: gas, oil and candles	1,567 69
Water	1,412 78
Ice supply	787 28
Salaries and wages	56,350 06
Taxes and insurance	511 05
Contingencies—interest	2,985 53
Repairs	19,470 22
Clothing for patients	901 28
Printing, postage, etc	1,493 32
Engines and boilers	2,504 82
Interest and exchange, grounds	1,456 80
Total	$177,143 66
Government grant for 1923	$40,345 00

THE WELLESLEY HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	81
Admitted	1,912
Births in Hospital	253
Total number under treatment	2,246
Discharged	2,096
Died	80
Under treatment, 30th September, 1923	70
	2,246

Sex.

Male	760
Female	1,486
	2,246

Revenue.

From the Province of Ontario	$193 50
From the City of Toronto	762 50
From the County of York	....
From other municipalities of the Province	....
From paying patients	205,439 37
Subscriptions, donations, etc	....
Other sources	....
Total	$206,395 37

Expenditures.

Butchers' meat and fish	$24,504 51
Butter and eggs	2,493 28
Flour, bread and meal	2,292 85
Milk	6,699 95
Tea and coffee	1,291 27
Potatoes and other vegetables	4,259 70
Groceries and provisions not enumerated	8,725 90
Drugs and medicines	4,340 32
Medical and surgical appliances and instruments	11,498 93
Beer, wine and spirits	....
Bedding, napery and general furnishings	6,210 32
Brooms, brushes, mops, soap and cleaning appliances	17,172 16
Fuel, electric light, gas, oil and candles	
Water supply	

THE WELLESLEY HOSPITAL, TORONTO.—*Continued.*

Salaries and wages	48,145 35	Printing, stationery, etc	5,168 02
Taxes, interest and insurance	1,027 06	X-ray	1,216 17
Contingencies and depreciations	49,834 07		
Repairs, ordinary	15,671 22	Total	$227,303 39
Nurses' home	2,487 53		
Telephone, interest and discount	14,264 78	Government aid for 1923	$246 50

WESTERN HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	162
Admitted	3,825
Births in Hospital	496
Total number under treatment	4,483
Discharged	4,056
Died	241
Under treatment, 30th September, 1923	186
	4,483

Sex.

Male	1,920
Female	2,563
	4,483

Revenue.

From the Province of Ontario	$19,786 69
From the City of Toronto	31,008 58
From the patients for maintenance and treatment	150,500 67
From subscriptions, donations and bequests from private individuals	466 00
From other sources	4,620 84
From other municipalities	3,647 40
Total	$210,030 18

Expenditures.

Butchers' meat	$14,154 12
Butter and eggs	7,008 37
Flour, bread and meal	2,095 85
Milk	7,330 66
Tea and coffee	2,237 50
Potatoes and other vegetables	6,928 40
Groceries and provisions not enumerated	10,657 68
Drugs and medicines	11,555 80
Medical and surgical appliances and instruments	16,238 39
Telephones	...
Beer, wine and spirits	910 28
Bedding, napery and general house furnishings	8,996 85
Brooms, brushes, mops, soap and cleaning appliances	3,437 32
Fuel	14,184 89
Light: gas, oil and candles	4,027 42
Water	1,851 71
Ice supply	1,303 92
Salaries and wages	89,407 94
Taxes and insurance	2,010 95
Contingencies—interest	16,066 67
Repairs, ordinary	4,300 63
Clothing for patients	1,150 01
Printing, postage, etc	3,587 02
Total	$229,442 34
Government grant for 1923	$17,743 80

WOMEN'S COLLEGE HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	51
Number admitted	883
Births in Hospital	322
Total number under treatment	1,256
Discharged	1,167
Died	45
Under treatment, 30th September, 1923	44
	1,256

WOMEN'S COLLEGE HOSPITAL, TORONTO.—*Continued.*

Sex.

Male	221
Female	1,035
	1,256

Revenue.

From the Province of Ontario	$6,420 20
From the City of Toronto	7,919 56
From the County of York	....
From other municipalities	....
From paying patients	38,242 63
Subscriptions, donations, etc.	468 00
Other sources	4,693 92
Total	$57,744 31

Expenditures.

Butchers' meat	$3,010 44
Butter and eggs	1,948 69
Flour, bread and meal	781 46
Milk	$1,909 17
Tea and coffee	422 08
Potatoes and other vegetables	1,472 96
Groceries and provisions not enumerated	2,522 57
Drugs and medicines	196 69
Medical and surgical appliances	5,325 84
Bedding, napery and general house furnishings	2,998 60
Brooms, brushes, mops, soap and cleaning appliances	300 52
Fuel	3,574 75
Electric light, gas, oil, candles	1,754 45
Water supply	209 18
Ice supply	349 55
Salaries and wages	17,947 34
Contingencies	324 31
Repairs, ordinary	1,591 33
Taxes and insurance	10 00
Printing, stationery, telephone	1,299 78
Beer, wine and spirits, laundry	4,524 69
X-Ray	1,544 11
Total	$54,018 51
Government grant for 1923	$6,780 40

THE HOME FOR INCURABLE CHILDREN, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	32
Admitted	8
Total number under treatment	40
Discharged	4
Died	1
Under treatment, 30th September, 1923	35
	40

Sex.

Male	20
Female	20
	40

Revenue.

From the Government of Ontario	$5,531 50
Income from endowments, etc., or other property belonging to the Hospital	3,622 10
From paying patients themselves	1,969 70
Subscriptions, donations and bequests of private individuals	11,290 46
From all other sources not above enumerated	2,815 14
From City of Toronto	1,181 45
Total	$26,410 35

Expenditures.

Butchers' meat	$935 43
Butter and eggs	830 61
Flour, bread and meal	380 67
Milk	729 09
Tea and coffee	123 47
Potatoes and other vegetables	201 93
Groceries and provisions not enumerated	945 47
Drugs and medicines	171 54
Medical and surgical appliances, surgical instruments	157 21
Bedding, napery and general house furnishings	779 73
Brooms, brushes, mops, soap and cleaning appliances	316 06
Fuel	1,074 05
Electric light, gas, oil and candles	207 19
Water supply	109 41
Ice	167 42
Salaries and wages	9,520 31
Taxes and insurance	51 83
Repairs, ordinary	857 31
Power	75 65
Sundries	83 59
Clothing for patients	337 29
Contingencies	....
Interest on debt	338 68
Rent	960 00
Printing and postage	441 31
Total	$19,795 25
Government grant for 1923	$5,613 50

GENERAL HOSPITAL, WALKERTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment 1st October, 1922	9
Number admitted	172
Number of births	17
Total number under treatment	198
Discharged	177
Died	10
Under treatment, 30th September, 1923	11
	198

Sex.

Male	95
Female	103
	198

Revenue.

From the Province of Ontario	$414 50
From the Town of Walkerton	200 00
From the County of Bruce	2,500 00
From paying patients themselves	6,813 32
From subscriptions and donations	91 00
From other sources	490 54
Total	$10,509 36

Expenditures.

Butchers' meat	$340 00
Butter and eggs	353 24
Flour, bread and meal	240 51
Milk	109 35
Tea and coffee	96 18
Potatoes and other vegetables	247 96
Groceries and provisions not enumerated	653 68
Drugs and medicines	519 86
Medical and surgical appliances	233 53
Bedding, napery and general house furnishings	461 59
Brooms brushes, mops, soap and cleaning appliances	203 86
Fuel	2,079 33
Gas, oil, candl s and electric light and power	493 32
Water supply	30 00
Beer, wine and spirits	....
Ice	42 50
Salaries and wages	4,260 00
Stationery, printing, etc	195 22
Contingencies	75 42
Repairs, ordinary	178 48
Taxes and insurance	5 37
Hay and straw	147 60
Deficit, 1922	2,085 11
Total	$13,052 11
Government grant for 1923	$542 20

GENERAL HOSPITAL, WELLAND.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	15
Admitted	713
Number of births in Hospital	48
Total number under treatment	776
Discharged	693
Died	50
Under treatment, 30th September, 1923	33
	776

Sex.

Male	400
Female	376
	776

Revenue.

From the Province of Ontario	$746 80
From the Town of Welland	....
From paying patients	22,921 03
Subscriptions, donations, etc	2,572 00
Other sources	6,124 99
Total	$32,364 82

Expenditures.

Butchers' meat	$1,054 59
Butter and eggs	1,554 74
Flour, bread and meal	730 05
Milk	926 61
Tea and coffee	....
Potatoes and other vegetables	439 41
Groceries and provisions not enumerated	2,484 13
Drugs and medicines	1,466 35
Medical and surgical appliances	2,767 55
Surgical instruments	17 76
Beer, wine and spirits	87 00
Bedding, napery and general house furnishings	667 43
Brooms, brushes, mops, soap and cleaning	100 37
Fuel	2,737 71
Electric light, gas, oil, telephone	1,590 24
Water supply	1 30
Ice supply	549 06
Printing, stationery, etc	588 75
Salaries and wages	8,367 01
Contingencies	1,291 61
Repairs, ordinary	2,271 46
Taxes and insurance	398 40
Total	$30,091 53
Government grant for 1923	$2,674 10

GRACE HOSPITAL, WINDSOR.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients

Number under treatment 1st October, 1922	23
Admitted	1481
Births in Hospital	203
Total number under treatment	1707
Discharged	1565
Died	86
Under treatment, 30th September, 1923	56
	1707

Sex.

Male	673
Female	1034
	1707

Revenue.

From the Province of Ontario	$3,523 30
From the Town of Windsor	....
From patients themselves for maintenance and treatment	48,196 62
From subscriptions, donations, and bequests from private individuals	296 66
From other sources	9,584 81
From endowments, investments, etc.	....
Total	$61,601 39

Expenditures.

Butchers' meat, Butter and eggs, Flour, bread and meal, Milk, Potatoes and other vegetables, Groceries and provisions not enumerated, Tea and coffee	$13,265 39
Drugs and medicines, Medical and surgical appliances, Surgical instruments	5,105 59
Bedding, napery and general house furnishings, Brooms, brushes mops, soap and cleaning appliances	2,253 91
Fuel, Light: gas, oil and power	4,221 88
Ice	....
Salaries and wages	24,314 06
Taxes and insurance	155 83
Contingencies	3,113 19
Repairs, ordinary	1,248 20
Printing, stationery, etc.	....
Hay and straw, laundry	5,494 84
Beer, wine and spirits	....
Rent	4,718 00
Total	$63,890 89

Government grant for 1923 ..... $7,195 90

HOTEL DIEU HOSPITAL, WINDSOR.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	83
Admitted	2,413
Births in Hospital	252
Total number under treatment	2,748
Discharged	2,538
Died	123
Under treatment, 30th September, 1923	87
	2,748

Sex.

Male	1,245
Female	1,503
	2,748

Revenue.

From the Province of Ontario	$7,442 10
From the Town of Windsor, for patients' maintenance	6,574 30
From the County of Essex	810 75
From paying patients themselves	47,683 27
From subscriptions, bequests, and donations of private individuals	162 00
From other sources	21,845 00
Total	$84,517 42

Expenditures.

Butchers' meat	$5,332 54
Butter and eggs	2,913 97
Flour, bread and meal	2,327 25
Milk	3,460 77
Tea and coffee	1,015 45
Potatoes and other vegetables	2,985 29
Groceries and provisions not enumerated	7,186 34
Drugs and medicines	2,646 48
Medical and surgical appliances	4,541 06
Surgical instruments	2,388 59
Alcohol	243 50
Bedding, napery and general house furnishings	12,625 25
Brooms, brushes, mops, soap and cleaning appliances	1,332 22
Fuel	7,207 61
Electric light, motor service	3,762 19
Water	100 90
Ice	....
Salaries and wages	16,286 18
Taxes, insurance and interest	775 85
Stationery, postage, etc.	800 93
Repairs, ordinary	5,998 00
Contingencies	908 87
Clothing, including boots	102 40
Total	$84,941 64

Government grant for 1923 ..... $7,239 10

GENERAL HOSPITAL, WINGHAM.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	4
Admitted	263
Births in Hospital	13
Total number under treatment.	280
Discharged	265
Died	7
Under treatment, 30th September, 1923	8
	280

Sex.

Male	108
Female	172
	280

Revenue.

From the Province of Ontario	$117 50
From the Town of Wingham	400 00
From the County of Huron	....
From other municipalities	....
From patients themselves for maintenance and treatment	9,610 85
Income from property	....
Subscriptions, donations and bequests of private individuals	1,040 00
From all other sources not enumerated	1,616 90
Total	$12,785 25

Expenditures.

Butchers' meat	$414 35
Butter and eggs	323 63
Flour, bread and meal	243 94
Milk	231 13
Tea and coffee	65 65
Potatoes and other vegetables	235 53
Groceries and provisions not enumerated	372 41
Drugs and medicines	203 81
Medical and surgical appliances	724 23
Surgical instruments	....
Beer, wine and spirits	107 40
Bedding, napery and general house furnishings	667 56
Brooms, brushes, mops, soap and cleaning appliances	49 66
Fuel	1,443 76
Electric light, gas, oil and candles	401 06
Water supply	50 40
Clothing for patients, including boots and shoes	....
Ice	20 00
Salaries and wages	3,601 11
Taxes and insurance	102 80
Contingencies	2,641 35
Repairs, ordinary and additions	189 09
Printing, stationery, etc	172 32
Telephones	....
Radiographic Dept.	....
Total	$12,261 19
Government grant for 1923	$136 00

THE WOODSTOCK HOSPITAL.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	21
Admitted	649
Births	90
Total number under treatment	760
Discharged	691
Died	44
Under treatment, 30th September, 1923	25
	760

Sex.

Male	316
Female	444
	760

Revenue.

From the Province of Ontario	$1,602 70
From the Town of Woodstock	2,500 00
From the County of Oxford	2,500 00
Income from endowments and investments	1,440 79
From paying patients themselves	24,393 69
Subscriptions, donations and bequests	16 25
Received from other sources	861 85
	$33,315 28

Expenditures.

Butchers' meat	$1,838 86
Butter and eggs	1,814 89
Flour, bread and meal	578 02
Milk	816 22
Tea and coffee	367 25
Potatoes and other vegetables	271 02
Groceries and other provisions not enumerated	2,401 00
Drugs and medicines	719 86
Medical and surgical appliances	1,896 02
Beer, wine and spirits	....
Bedding, etc	1,246 67

THE WOODSTOCK HOSPITAL.—*Continued.*

Brooms, brushes, mops, soap and cleaning appliances	1,007	39	Contingencies	1,590	45
Fuel	1,827	02	Repairs, ordinary	947	11
Electric light, gas, oil and candles	750	30	Printing, stationery, etc	178	81
Ice	239	29	Water supply	176	93
Salaries and wages	9,962	65	Total	$29,146	23
Insurance and taxes	516	47	Government grant for 1923	$1,490	30

BRANT SANATORIUM, BRANTFORD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	33
Admitted	40
Total number under treatment.	73
Discharged	33
Died	3
Under treatment, 30th September, 1923	37
	73

Sex.

Male	33
Female	40
	73

Revenue.

From the Province of Ontario	$11,623 50
From the City of Brantford	11,832 35
From the County of Brant	693 58
From other municipalities of the Province	1,242 00
From paying patients	2,157 10
Subscriptions, donations, etc	....
Bank overdraft	2,743 65
	$31,292 18

Expenditures.

Butchers' meat and fish	$2,290 49
Butter and eggs	949 24
Flour, bread and meal	416 21
Milk	1,107 49
Tea and coffee	143 76
Potatoes and other vegetables	402 92
Groceries and provisions not enumerated	1,344 57
Drugs and medicines	393 26
Medical and surgical appliances	549 65
Surgical instruments	.....
Laundry	522 51
Bedding, napery and general house furnishings	856 12
Brooms, brushes, mops, soap and cleaning appliances	458 47
Fuel	3,900 31
Electric light, gas, oil and candles	663 66
Water supply	27 83
Salaries and wages	9,621 01
Taxes, insurance and interest	363 30
Contingencies	971 91
Repairs, ordinary	948 12
Ice supply	....
Clothing for patients	....
Printing, stationery, etc	231 23
Deficit for 1922	5,230 12
Total	$31,292 18
Government aid for 1923	$9,685 50

NATIONAL SANATORIUM FOR CONSUMPTIVES, GRAVENHURST.

(Muskoka Cottages)

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	39
Admitted	76
Total number under treatment.	115
Discharged	82
Died	6
Under treatment, 30th September, 1923	27
	115

Sex.

Male	54
Female	61
	115

Revenue.

From the Dominion Government	....
From paying patients themselves	$46,012 46
From subscriptions, bequests and donations of private individuals	....
From other sources	5,507 20
Total	$51,519 66

NATIONAL SANITORIUM FOR CONSUMPTIVES, GRAVENHURST.—*Continued.*

Expenditures.

Butchers' meats	$ 7,868 59
Butter and eggs	5,145 99
Flour, bread and meal	1,600 84
Milk	4,936 89
Tea and coffee	1,172 53
Potatoes and other vegetables	5,555 15
Groceries and provisions not enumerated	1,460 67
Drugs and medicines	2,065 43
Medical and surgical appliances, laundry	3,247 77
Bedding, napery and general house furnishings	4,779 79
Brooms, brushes, mops, soap and cleaning appliances and laundry	518 37
Fuel	11,912 18
Electric light, oil and candles	1,534 36
Maintenance of plant	.....
Telephone	266 09
Ice	19 59
Salaries and wages	21,210 24
Laundry	872 77
Advertising, printing, postage, etc.	726 17
Contingencies	....
Repairs, ordinary	5,078 85
Insurance premiums	1,133 58
Bank interest and exchange	76 26
Travelling expenses	213 12
Improving grounds	.....
H.O. Expenses	823 61
X-Ray and medical staff supplies	326 81
General expenses	418 46
Depreciation	11,239 67
Total	$94,203 78
Less maintenance costs of patients at annex	37,111 50
Total	$57,092 28

MUSKOKA HOSPITAL FOR CONSUMPTIVES.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	227
Admitted	454
Total number under treatment	681
Discharged	403
Died	32
Under treatment, 30th September, 1923	246
	681

Sex.

Male	378
Female	303
	681

Revenue.

From the Province of Ontario	$63,657 00
From the City of Toronto, in payment of patients' maintenance	58,053 00
From other municipalities	22,761 82
From endowments, investments, etc	12,134 27
From paying patients themselves	25,317 79
Subscriptions, donations and bequests of private individuals	65,443 34
From all other sources not above enumerated	4,922 09
From Dominion Government	1,654 46
Total	$253,943 77

Expenditures.

Butchers' meat	$18,419 94
Butter and eggs	11,727 40
Flour, bread and meal	3,668 02
Milk	12,184 16
Tea and coffee	2,173 26
Potatoes and other vegetables	14,279 27
Groceries and provisions not enumerated	4,285 27
Dentistry	885 87
Medical and surgical appliances, disp nsary	.....
Bedding, napery and general house furnishings	12,136 70
Brooms, brushes, mops, soap and cleaning appliances	1,482 12
Fuel	19,125 57
Maintenance of plant	.....
Improving grounds	157 99
Travelling expenses	.....
Electric light, gas, oil and candles	3,077 23
Ice supply	228 35
Salaries and wages	58,475 03
Insurance and taxes	3,190 88
Laundry	4,405 09
Contingencies	.....
Repairs, ordinary	5,479 95
Interest and bank collection	236 61
Postage and advertising	2,735 66
Freight and livery	1,813 44
Surgical instruments	.....
X-ray expenses	5,785 91
Head office expenses	9,872 19
Outdoor furnishings	.....
Medical staff supplies	.....
Maintenance of transferred patients	39,614 00
Telephones	946 50
Sundries	1,098 66
Depreciation	18,217 85
Total	$255,702 92
Government grant for 1923	$64,661 25

MOUNTAIN SANATORIUM, HAMILTON

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	190
Admitted	182
Total number under treatment.	372
Discharged	127
Died	56
Under treatment, 30th September, 1923	189
	372

Sex.

Male	203
Female	169
	372

Revenue.

From the Province of Ontario	$53,422 50
From the City of Hamilton, for patients' maintenance	68,316 57
From paying patients themselves.	24,971 35
From endowments, investments, etc	328 95
From other sources	.....
Total	$147,039 37

Expenditures.

Butchers' meat	$14,665 48
Butter and eggs	7,358 02
Flour, bread and meal	2,693 38
Milk	5,583 16
Potatoes and other vegetables, and fruit	3,175 70
Groceries and provisions not enumerated	7,455 47
Drugs and medicines	2,934 76
Dispensary work	81 45
Brooms, brushes, mops, soap and cleaning appliances	4,886 19
Bedding, napery and general house furnishings	
Fuel	12,344 31
Light: gas, oil and candles	2,164 18
Farm and stable expenses	3,050 15
Contingencies	.....
Salaries and wages	51,611 95
Taxes and insurance	892 59
Laundry	4,704 11
Advertising, stationery and postage, etc	3,782 09
Repairs, ordinary	6,463 78
Ice	95 99
Interest	412 79
Water supply	1,219 22
Depreciation	12,011 45
Total	$147,586 22
Government grant for 1923	$53,421 75

FREEPORT SANATORIUM, KITCHENER.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	40
Admitted	84
Total number under treatment.	124
Discharged	63
Died	12
Under treatment, 30th September, 1923	49
	124

Sex.

Male	63
Female	61
	124

Revenue.

From the Government of Ontario for maintenance	$12,219 75
From the County of Waterloo	3,000 00
From the Cities of Galt and Kitchener	6,000 00
From other municipalities	.....
From paying patients	25,601 88
From subscriptions, bequests and donations from private individuals	2,682 29
From other sources not enumerated	6,333 90
Total	$55,837 82

Expenditures.

Butchers' meat and fish	$2,871 55
Butter and eggs	2,095 92
Flour, bread and meal	524 16
Milk	1,972 68
Tea and coffee	518 18
Potatoes and other vegetables	394 63
Groceries and provisions not enumerated	1,770 02
Drugs and medicines	214 64
Medical and surgical appliances	497 85
Bedding, napery and general house furnishings	408 20
Brooms, brushes, mops, soap and cleaning appliances, laundry	723 02
Fuel	2,966 78
Electric light, gas, oil and candles	1,346 53
Water supply	.....
Ice supply	160 25
Salaries and wages	16,068 84
Taxes, insurance and interest	102 22
Contingencies	2,879 92
Repairs, ordinary	2,735 32
Printing, stationery, telephone	588 33
Hay and straw, farm	972 92
Laboratory	120 00
Total	$39,931 97
Government grant for 1923	$12,215 25

QUEEN ALEXANDRA SANATORIUM, LONDON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	250
Admitted	369
Total number under treatment.	619
Discharged	358
Died	21
Under treatment, 30th September, 1923	240
	619

Sex.

Male	491
Female	128
	619

Revenue.

From the Province of Ontario	$28,497 75
From the City of London	23,776 50
From the County of Middlesex	3,897 00
From other municipalities	21,714 25
From patients themselves for maintenance and treatment	15,228 00
From subscriptions, donations and bequests from private individuals	9,818 63
From other sources	3,206 46
From Dominion Government	157,155 95
Total	$263,294 54

Expenditures.

Butchers' meat	$23,477 51
Butter and eggs	13,027 83
Flour, bread and meal	4,032 13
Milk	12,135 70
Tea and coffee	2,120 24
Potatoes and other vegetables	12,174 63
Groceries and provisions not enumerated	7,734 67
Drugs and medicines	2,233 84
Medical and surgical appliances	4,870 80
Surgical instruments	.....
Beer, wine and spirits	323 30
Bedding, napery and general house furnishings	5,043 59
Brooms, brushes, mops, soap and cleaning appliances	10,516 70
Fuel	21,440 14
Electric light, gas, oil, candles	4,034 86
Salaries and wages	107,813 79
Taxes and insurance	11,054 18
Contingencies	6,573 68
Ice supply	6,460 64
Printing, stationery, postage, etc., office expense	10,474 86
Repairs, ordinary	....
Clothing for patients	29 82
Depreciation	25,510 80
Total	$281,083 71
Government grant for 1923	$28,482 00

ROYAL SANATORIUM, OTTAWA.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	57
Admitted	124
Total number under treatment.	181
Discharged	84
Died	31
Under treatment, 30th September, 1923	66
	181

Sex.

Male	78
Female	103
	181

Revenue.

From the Province of Ontario	$22,243 50
From the City of Ottawa	31,543 20
From paying patients	3,539 31
From all other sources	.....
Total	$57,326 01

Expenditures.

Butchers' meat, poultry and fish	$2,677 26
Butter and eggs	1,157 80
Flour, bread and meal	972 34
Milk	2,253 30
Tea and coffee	387 85
Potatoes and other vegetables	889 95
Groceries and provisions not enumerated	809 99
Brooms, brushes, soap and cleaning appliances	573 90
Drugs, medicines and appliances	1,179 41
Beer, wine and spirits	....
Surgical instruments	298 63
Bedding, napery and general house furnishings	2,858 97
Fuel	11,031 58
Electric light, gas, oil and candles	537 26
Water supply	.....
Ice supply	263 62
Salaries and wages	25,379 21
Contingencies	1,073 98
Repairs, ordinary	2,045 37
Taxes and insurance	.....
Stationery, postage, etc	374 72
Other expenditures not enumerated	1051 14
Poultry feed, hay and straw	1,509 73
Total	$57,326 01
Government grant for 1923	$18,360 00

CONSUMPTIVE SANATORIUM, ST. CATHARINES.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	8
Admitted	31
Total number under treatment	39
Discharged	17
Died	8
Under treatment, 30th September, 1923	14
	39
Sex.	
Male	25
Female	14
	39

Revenue.	
From the Province of Ontario	$3,938 25
From the City of St. Catharines	2,524 50
From other municipalities	2,247 00
From patients themselves	702 90
From endowments, investments, etc.	277 50
From subscriptions, bequests and donations of private individuals	2,242 00
From other sources	3 00
From Dominion Government	....
Total	$11,935 15

Expenditures.	
Butchers' meat	$ 991 12
Butter and eggs	415 99
Flour, bread and meal	237 28
Milk	154 40
Tea and coffee	167 21
Potatoes and other vegetables	126 41
Groceries and provisions not enumerated	707 60
Drugs and medicines	217 33
Bedding, napery and general house furnishings	452 08
Brooms, brushes, mops, soap and cleaning appliances	101 74
Fuel	1,000 00
Electric light, oil, candles	74 62
Ice	96 00
Salaries and wages	2,836 00
Taxes and insurance	.....
Contingencies	277 40
Repairs, ordinary	1,301 31
Water supply	12 00
Hay and straw	58 10
Beer, wine and spirits	86 50
Printing and postage	187 17
Purchase of bonds	2,064 78
Total	$11,565 04
Government grant for 1923	$3,288 75

THE PREVENTORIUM, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.	
Number under treatment, 1st October, 1922	72
Admitted	144
Total number under treatment	216
Discharged	146
Died	.....
Under treatment, 30th September, 1923	70
	216
Sex.	
Male	111
Female	105
	216

Revenue.	
From the Province of Ontario	$28,398 50
From City of Toronto	23,805 75
From patients themselves for maintenance and treatment	1,120 00
From property belonging to hospitals, endowments, etc.	.....
From subscriptions, donations and bequests from private individuals	....
From all other sources not above enumerated	811 66
Total	$54,135 91

Expenditures.	
Butchers' meat	$1,312 73
Butter and eggs	1,571 99
Flour, bread and meal	620 00
Milk	3,741 41
Tea and coffee	181 99
Potatoes and other vegetables	1,012 00
Groceries and provisions not enumerated	1,228 24
Drugs and medicines	484 17
Surgical instruments and appliances	.....
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	2,315 62
Brooms, brushes, mops, soap and cleaning appliances	724 19
Fuel	3,268 90
Electric light, gas, oil, candles	1,600 28
Water supply	356 22
Clothing for patients	1,493 98
Ice	228 20
Salaries and wages	19,678 28
Taxes and Insurance	641 81
Contingencies	329 11
Printing, Stationery, etc	347 59
Repairs, ordinary	6,381 85
Total	$47,519 16
Government grant for 1923	$18,582 00

TORONTO HOSPITAL FOR CONSUMPTIVES, WESTON.

(Including Queen Mary Hospital for Consumptive Children, and King Edward Annex.)

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1922	317
Admitted	409
Total number under treatment	726
Discharged	288
Died	141
Under treatment, 30th September, 1923	307
	726

Sex.

Male	381
Female	345
	726

Revenue.

From the Province of Ontario	$89,919 00
From the City of Toronto	121,596 00
From other municipalities	28,784 10
From patients themselves for maintenance and treatment	15,288 63
From endowments, investments, etc	7,254 93
From subscriptions, donations, and bequests from private individuals	23,933 27
From other sources	11,391 36
From Dominion Government	4,013 70
Total	$302,180 99

Expenditures.

Butchers' meat	$21,738 72
Butter and eggs	15,935 06
Flour, bread and meal	6,257 30
Milk	14,401 74
Tea and coffee	2,941 28
Potatoes and other vegetables	12,945 16
Groceries and provisions not enumerated	4,481 53
Drugs and medicines	7,399 56
Laboratory expenses and medical appliances	....
Bank interest and exchange	....
Bedding, napery and general house furnishings	13,831 82
Brooms, brushes, mops, soap and cleaning appliances	2,112 16
Fuel	34,945 48
Electric light, gas, oil and candles	2,421 86
Laundry	8,865 44
Maintenance of plant	.....
Improving grounds	.....
Advertising, stationery, and postage	1,858 13
Ice	62 84
Salaries and wages	82,285 64
Taxes and insurance	1,426 79
Freight and livery	2,670 11
Contingencies	649 89
Outside furnishings	.....
Travelling expenses	69 64
Repairs, ordinary	8,624 08
Medical staff supplies, dentistry	356 60
Head office expenses	9,059 67
Telephones	1,445 30
Dispensary and X-ray	7,853 59
Water supply	3,044 24
Hay and straw	.....
Depreciation	34,473 18
Total	$302,156 81
Government grant for 1923	$87,852 75

CITY HOUSES OF REFUGE

The usual information obtained from each Refuge, in respect of sex, and previous residence of the inmates, has been summarized as under:

Sex.

Male	1,868
Female	3,709
	5,577

Former Residence.

Received from cities and towns in which the Refuges are located	4,212
Received from counties in which the Refuges are located	334
Received from other counties in the Province	807
Immigrants and foreigners	224
	5,577

TABLE I.

City Refuges. Summary of the operations of each Refuge during the year:

Name of Refuge.	Location.	Number of persons in the Refuge on the 1st Oct., 1922.	Number admitted during the year.	Total number under lodgment during the year ending on 30th Sept., 1923.	Total number discharged during the year.	Number of deaths during the year.	Number of persons remaining in the Refuge on 30th Sept., 1923.
Home for the Friendless	Belleville	10	9	19	6	5	8
The Widows' Home	Brantford	16	2	18	.....	3	15
Home for the Friendless	Chatham	37	17	54	13	7	34
St. Paul's Home for the Aged	Cornwall	66	52	118	27	17	74
House of Providence	Dundas	148	80	228	69	14	145
Elliott Home	Guelph	26	4	30	3	2	25
House of Providence	"	38	16	54	7	7	40
Aged Women's Home	Hamilton	51	9	60	1	7	52
Hamilton House of Refuge	"	118	61	179	27	22	130
St. Peter's Infirmary	"	12	5	17	1	2	14
Home for Friendless Women and Infants	Kingston	19	30	49	27	.....	22
House of Providence	"	148	68	216	42	23	151
House of Refuge	"	45	20	65	13	4	48
House of Providence	London	190	86	276	62	25	189
London Convalescent Home	"	4	4	8	4	.....	4
McCormack Home for Aged People	"	73	25	98	15	16	67
Elizabeth Residence for Elderly Ladies	Ottawa	17	7	24	7	2	15
Monastery of Our Lady of Charity	"	182	107	289	100	.....	189
Ottawa Home for Friendless Women	"	41	87	128	89	2	37
Protestant Home for the Aged	"	23	11	34	9	2	23
Protestant Orphans' Home, Refuge Branch	"	20	4	24	4	2	18
St. Charles Hospice	"	212	78	290	36	36	218
St. Patrick's Asylum, Refuge Branch	"	115	34	149	19	15	115
Women's Convalescent Home	"	6	117	123	118	.....	5
Parry Sound District House of Refuge	Powassan	20	14	34	5	9	20
Peterborough Protestant Home	Peterborough	36	12	48	10	2	36
St. Joseph's House of Providence	"	69	29	98	17	18	63
Thomas Williams Home	St. Thomas	22	6	28	2	3	23
District of Algoma House of Refuge	Sault Ste. Marie	48	28	76	20	7	49
Aged Men's Home	Toronto	50	22	72	17	8	47
Aged Women's Home	"	109	28	137	8	19	110
Church Home for the Aged	"	40	5	45	2	3	40
Good Shepherd Female Refuge	"	156	83	239	92	.....	147
Haven and Prison Gate Refuge	"	90	116	206	100	3	103
Hillcrest Convalescent Home	"	30	156	186	166	.....	20
Toronto House of Industry	"	114	109	223	96	21	106
House of Providence	"	390	396	786	312	47	427
Humewood House Association	"	21	56	77	62	.....	15
Jewish Old Folk's Home	"	26	7	33	.....	7	26
Julia Greenshields Home	"	30	9	39	3	6	30
Salvation Army Rescue Home	"	69	356	425	349	5	71
Toronto Industrial Refuge	"	68	10	78	12	1	65
Victor Home for Young Women	"	25	119	144	118	1	25
Home for the Friendless	Windsor	27	26	53	15	4	34
Totals for 1923		3,057	2,520	5,577	2,105	377	3,095
Totals for 1922		3,059	2,630	5,689	3,025	330	2,334

TABLE II.

City Refuges. Shows the aggregate stay of inmates upon which the amount of aid to be granted by the Government to each Refuge is based. The average stay per inmate is also given:

Name of Refuge.	Location.	Number of inmates during the year.	Total days' stay during the year.	Average stay per inmate in days.
Home for the Friendless	Belleville	19	2,905	153
The Widows' Home	Brantford	18	5,790	322
Home for the Friendless	Chatham	54	13,613	252
St. Paul's Home for the Aged	Cornwall	118	26,922	228
House of Providence	Dundas	228	55,466	243
Elliott Home	Guelph	30	9,587	318
House of Providence	"	54	14,543	269
Aged Women's Home	Hamilton	60	18,495	308
Hamilton House of Refuge	"	179	45,226	253
St. Peter's Infirmary	"	17	4,953	291
Home for Friendless Women and Infants	Kingston	49	7,527	154
House of Providence	"	216	58,099	269
House of Refuge	"	65	16,674	256
House of Providence	London	276	73,816	267
London Convalescent Home	"	8	1,111	144
McCormack Home for Aged People	"	98	25,848	264
Elizabeth Residence for Elderly Ladies	Ottawa	24	5,489	229
Monastery of Our Lady of Charity	"	289	64,098	222
Ottawa Home for Friendless Women	"	128	12,684	99
Protestant Home for the Aged	"	34	9,245	272
Protestant Orphans' Home, Refuge Branch	"	24	7,241	302
St. Charles Hospice	"	290	78,337	270
St. Patrick's Asylum, Refuge Branch	"	149	41,256	277
Women's Convalescent Home	"	123	2,423	20
Parry Sound District House of Refuge	Powassan	34	7,576	223
Peterborough Protestant Home	Peterborough	48	11,599	242
St. Joseph's House of Providence	"	98	25,825	264
Thomas Williams Home	St. Thomas	28	8,298	296
District of Algoma House of Refuge	Sault Ste. Marie	76	19,398	255
Aged Men's Home	Toronto	72	17,895	249
Aged Women's Home	"	137	38,603	282
Church Home for the Aged	"	45	14,468	321
Good Shepherd Female Refuge	"	239	55,006	230
Haven and Prison Gate Mission	"	206	35,331	172
Hillcrest Convalescent Home	"	186	9,364	50
Toronto House of Industry	"	223	43,242	194
House of Providence	"	786	150,895	192
Humewood House Association	"	77	7,234	94
Jewish Old Folk's Home	"	33	9,631	292
Julia Greenshields Home	"	39	10,520	270
Salvation Army Rescue Home	"	425	27,460	65
Toronto Industrial Refuge	"	78	22,936	294
Victor Home for Young Women	"	144	13,740	95
Home for the Friendless	Windsor	53	11,418	215
Totals for 1923		5,577	1,141,787	205
Totals for 1922		5,689	1,140,554	200

TABLE III.

City Refuges. Showing the cost of maintaining the Refuges.

Name of Refuge.	Location.	Aggregate stay of inmates.	Cost of dietaries.	Expenditure for fuel, salaries and wages, and all general expenses.	Total expenditure exclusive of extraordinary expenses.	Average cost per inmate per day.
			$ c.	$ c.	$ c.	$ c.
Home for the Friendless	Belleville	2,905	490 49	1,626 41	2,116 90	0 73
The Widows' Home	Brantford	5,790	1,111 05	2,045 71	3,156 76	0 55
Home for the Friendless	Chatham	13,613	2,383 21	6,474 24	8,857 45	0 65
St. Paul's Home for the Aged	Cornwall	26,922	4,712 42	5,029 18	9,741 60	0 36
House of Providence	Dundas	55,466	17,697 93	18,820 72	36,518 65	0 66
Elliott Home	Guelph	9,587	3,014 50	8,173 18	11,187 68	1 17
House of Providence	"	14,543	4,370 67	3,766 69	8,137 36	0 56
Aged Women's Home	Hamilton	18,495	4,307 43	15,040 47	19,347 90	1 05
Hamilton House of Refuge	"	45,226	11,288 36	24,522 96	35,811 32	0 79
St. Peter's Infirmary	"	4,953	1,378 07	4,226 21	5,604 28	1 13
Home for Friendless Women and Inf'ts	Kingston	7,527	610 78	2,659 66	3,270 44	0 43
House of Providence	"	58,099	22,835 45	26,155 67	48,991 12	0 84
House of Refuge	"	16,674	4,342 58	6,744 48	11,087 06	0 66
House of Providence	London	73,816	12,633 97	17,089 28	29,723 25	0 40
London Convalescent Home	"	1,111	521 36	666 57	1,187 93	1 07
McCormack Home for Aged People	"	25,848	8,246 34	23,637 64	31,883 98	1 23
Elizabeth Residence for Elderly Ladies	Ottawa	5,489	2,090 22	5,356 14	7,446 36	1 36
Monastery of our Lady of Charity	"	64,098	17,501 93	28,462 80	45,964 73	0 72
Ottawa Home for Friendless Women	"	12,684	3,029 10	29,754 20	32,783 30	2 58
Protestant Home for the Aged	"	9,245	1,408 72	6,750 07	8,158 79	0 88
Protestant Orphans' Home, Refuge Br.	"	7,241	*4,930 63	13,918 02	18,848 65	2 60
St. Charles Hospice	"	78,337	10,971 66	13,799 40	24,771 06	0 32
St. Patrick's Asylum, Refuge Branch	"	41,256	7,769 82	19,048 36	26,818 18	0 65
Women's Convalescent Home	"	2,423	1,250 31	4,790 68	6,040 99	2 49
Parry Sound District House of Refuge	Powassan	7,576	1,827 26	8,471 50	10,298 76	1 36
Peterborough Protestant Home	Peterborough	11,599	2,379 08	7,235 10	9,614 18	0 83
St. Joseph's House of Providence	"	25,825	5,240 72	5,748 08	10,988 80	0 43
Thomas Williams Home	St. Thomas	8,298	1,691 25	4,382 40	6,073 65	0 73
District of Algoma House of Refuge	Sault Ste. Marie	19,398	5,517 54	11,309 82	16,827 36	0 87
Aged Men's Home	Toronto	17,895	4,935 49	13,542 87	18,478 36	1 03
Aged Women's Home	"	38,603	10,514 81	25,308 07	35,822 88	0 93
Church Home for the Aged	"	14,468	5,167 86	10,453 70	15,621 56	1 08
Good Shepherd Female Refuge	"	55,006	17,858 71	15,596 42	33,455 13	0 61
Haven and Prison Gate Mission	"	35,331	7,917 16	22,850 65	30,767 81	0 87
Hillcrest Convalescent Home	"	9,364	5,499 56	9,630 03	15,129 59	1 62
Toronto House of Industry	"	43,242	8,353 89	39,947 11	48,301 00	1 12
House of Providence	"	150,895	36,979 05	36,869 57	73,848 62	0 48
Humewood House Association	"	7,234	1,777 02	7,339 27	9,116 29	1 26
Jewish Old Folk's Home	"	9,631	3,856 52	9,660 22	13,516 74	1 40
Julia Greenshields Home	"	10,520	4,411 45	11,344 37	15,755 82	1 50
Salvation Army Rescue Home	"	27,460	3,079 08	13,586 33	16,665 41	0 61
Toronto Industrial Refuge	"	22,936	5,178 75	27,729 51	32,908 26	1 43
Victor Home for Young Women	"	13,740	1,543 32	4,025 98	5,569 30	0 40
Home for the Friendless	Windsor	11,418	2,898 62	2,865 06	5,763 68	0 50
Totals for 1923		1,141,787	285,524 14	576,454 80	861,978 94	0 76
Totals for 1922		1,140,554	299,955 66	553,458 65	853,414 31	0 75

*Expenditures include Orphanage Branch.

TABLE IV.

City Refuges. Shows the basis upon which statutory aid is granted.

Name of Refuge.	Location.	Collective days' stay upon which computation of Refuge rate is based, exclusive of infants under one year old.	Collective days' stay upon which computation of Orphanage rate is based, exclusive of infants under one year old.	Amount received from all sources other than Government.	Computation at ten (10) cents per day.	Computation at five (5) cents per day.	Total Government allowance to each House of Refuge for the year 1923.
				$ c.	$ c.	$ c.	$ c.
Home for the Friendless	Belleville	2,905	.....	1,800 00	290 50	.....	290 50
The Widows' Home	Brantford	5,790	.....	2,683 25	579 00	.....	579 00
Home for the Friendless	Chatham	13,613	.....	7,971 68	1,361 30	.....	1,361 30
St. Paul's Home for the Aged	Cornwall	26,922	.....	7,345 96	2,692 20	.....	2,692 20
House of Providence	Dundas	55,466	.....	30,799 73	5,546 60	.....	5,546 60
Elliott Home	Guelph	9,587	.....	10,019 34	958 70	.....	958 70
House of Providence	"	14,543	.....	7,041 05	1,454 30	.....	1,454 30
Aged Women's Home	Hamilton	18,495	.....	18,924 07	1,849 50	.....	1,849 50
Hamilton House of Refuge	"	45,226	.....	31,616 82	4,522 60	.....	4,522 60
St. Peter's Infirmary	"	4,953	.....	6,191 20	495 30	.....	495 30
Home for Friendless Women and Infants	Kingston	1,220	6,307	3,052 53	122 00	315 35	437 35
House of Providence	"	58,099	.....	43,360 19	5,809 90	.....	5,809 90
House of Refuge	"	16,674	.....	9,091 45	1,667 40	.....	1,667 40
House of Providence	London	73,816	.....	22,894 17	7,381 60	.....	7,381 60
London Convalescent Home	"	1,111	.....	1,019 81	111 10	.....	111 10
McCormack Home for the Aged	"	25,848	.....	19,578 10	2,584 80	.....	2,584 80
Elizabeth Residence for Elderly Ladies	Ottawa	5,489	.....	6,460 14	548 90	.....	548 90
Monastery of Our Lady of Charity	"	53,966	10,132	29,269 40	5,396 60	506 60	5,903 20
Ottawa Home for Friendless Women	"	9,638	3,046	31,944 56	963 80	152 30	1,116 10
Protestant Home for the Aged	"	9,245	.....	6,153 88	924 50	.....	924 50
Protestant Orphans' Home, Refuge Branch	"	7,241	.....	15,238 68	724 10	.....	724 10
St. Charles Hospice	"	78,337	.....	16,906 17	7,833 70	.....	7,833 70
St. Patrick's Asylum, Refuge Branch	"	41,256	.....	33,957 51	4,125 60	.....	4,125 60
Women's Convalescent Home	"	2,423	.....	2,401 80	242 30	.....	242 30
Parry Sound District House of Refuge	Powassan	7,576	.....	6,920 29	757 60	.....	757 60
Peterborough Protestant Home	Peterborough	11,599	.....	7,910 39	1,159 90	.....	1,159 90
St. Joseph's House of Providence	"	25,825	.....	6,728 32	2,582 50	.....	2,582 50
Thomas Williams Home	St. Thomas	8,298	.....	5,392 63	829 80	.....	829 80

TABLE IV.—*Continued.*

City Refuges. Shows the basis upon which statutory aid is granted.

Name of Refuge.	Location.	Collective days' stay upon which computation of Refuge rate is based, exclusive of infants under one year old.	Collective days' stay upon which computation of Orphanage rate is based, exclusive of infants under one year old.	Amount received from all sources other than Government.	Computation at ten (10) cents per day.	Computation at five (5) cents per day.	Total Government allowance to each house of Refuge for the year 1923.
				$ c.	$ c.	$ c.	$ c.
District of Algoma House of Refuge	Sault Ste. Marie	19,398	.....	14,900 25	1,939 80	.....	1,939 80
Aged Men's Home	Toronto	17,895	.....	16,944 89	1,789 50	.....	1,789 50
Aged Women's Home	"	38,603	.....	31,953 17	3,860 30	.....	3,860 30
Church Home for the Aged	"	14,468	.....	13,492 94	1,446 80	.....	1,446 80
Good Shepherd Female Refuge	"	55,006	.....	27,385 00	5,500 60	.....	5,500 60
Haven and Prison Gate Mission	"	24,705	10,626	24,656 00	2,470 50	531 30	3,001 80
Hillcrest Convalescent Home	"	2,535	.....	14,739 14	252 50	.....	252 50
Toronto House of Industry	"	43,242	.....	*235,199 95	4,324 20	.....	4,324 20
House of Providence	"	150,895	.....	66,484 61	15,089 50	.....	15,089 50
Humewood House Association	"	3,655	570	8,692 15	365 50	28 50	394 00
Jewish Old Folk's Home	"	9,631	.....	11,598 39	963 10	.....	963 10
Julia Greenshields Home	"	10,520	.....	14,666 69	1,052 00	.....	1,052 00
Salvation Army Rescue Home	"	19,117	.....	14,814 56	1,911 70	.....	1,911 70
Toronto Industrial Refuge	"	22,936	.....	30,823 24	2,293 60	.....	2,293 60
Victor Home for Young Women	"	8,783	.....	4,721 00	878 30	.....	878 30
Home for the Friendless	Windsor	11,418	.....	5,261 11	1,141 80	.....	1,141 80
Totals for 1923	.....	1,087,958	30,681	929,006 21	108,795 80	1,534 05	110,329 85
Totals for 1922	.....	1,086,223	26,705	1,060,450 66	108,622 30	1,335 25	109,957 55

*This includes amount received for outdoor relief.

SEPARATE REPORTS

THE HOME FOR THE FRIENDLESS, BELLEVILLE.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922...	10
Admitted	9
Total number of inmates	19
Discharged	6
Died	5
In residence, 30th September, 1923	8
	19

Places Admitted From.	
City of Belleville	19
	19

Sex.	
Male	7
Female	12
	19

Receipts.	
From the Province of Ontario...	$316 90
From the City of Belleville	1,800 00
From inmates	.....
Subscriptions and donations	.....
From other sources	.....
Total	$2,116 90

Expenditures.	
Food of all kinds	$490 49
Clothing and furnishings	43 27
Fuel, light and cleaning	316 65
Salaries and wages	713 62
Repairs, ordinary	149 87
Other expenses	403 00
Total	$2,116 90
Government aid for 1923	$290 50

THE WIDOWS' HOME, BRANTFORD.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922...	16
Admitted	2
Total number of inmates	18
Discharged	.....
Died	3
In residence, 30th September, 1923	15
	18

Places Admitted From.	
City of Brantford	14
County of Brant	4
Other counties in Ontario	.....
	18

Sex.	
Female	18
	18

Receipts.	
From the Province of Ontario...	$536 30
From inmates	638 00
Subscriptions and donations	1,043 88
From other sources	1,001 37
Total	$3,219 55

Expenditures.	
Food of all kinds	$1,111 05
Clothing and furnishings	108 03
Fuel, light, cleaning, etc	510 22
Salaries and wages	832 35
Repairs, ordinary, etc	242 36
Other expenses	352 75
Total	$3,156 76
Government aid for 1923	$579 00

THE HOME FOR THE FRIENDLESS, CHATHAM.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	37
Admitted	17
Total number of inmates	54
Discharged	13
Died	7
In residence, 30th September, 1923	34
	54

Places Admitted From.

City of Chatham	54
County of Kent	.....
Other counties in Ontario	.....
Immigrants, foreigners, etc.	.....
	54

Sex.

Male	37
Female	17
	54

Receipts.

From the Province of Ontario	$1,250 50
From the City of Chatham	4,500 00
From inmates themselves	1,247 75
Subscriptions and donations of private individuals	1,063 00
Other sources	1,160 93
Total	$9,222 18

Expenditures.

Food of all kinds	$2,383 21
Clothing and furnishings	233 41
Fuel, light, cleaning, etc.	1,032 53
Salaries and wages	1,600 00
Repairs	199 76
Other expenses	3,408 54
Total	$8,857 45
Government aid for 1923	$1,361 30

ST. PAUL'S HOME FOR THE AGED, CORNWALL.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	66
Admitted	52
Total number of inmates	118
Discharged	27
Died	17
In residence, 30th September, 1923	74
	118

Places Admitted From.

Town of Cornwall	32
County of Stormont	22
Other counties	63
Immigrants	1
	118

Sex.

Male	59
Female	59
	118

Receipts.

From the Province of Ontario	$2,396 90
From the Town of Cornwall	.....
From other municipalities	200 00
From inmates themselves	1,354 00
Subscriptions, donations and bequests of private individuals	5,061 85
From other sources	730 11
Total	$9,742 86

Expenditures.

Food of all kinds	$4,712 42
Clothing and furnishings	476 38
Fuel, light, cleaning, etc.	2,570 72
Repairs	743 00
Medicine and medical comforts	194 00
Other expenses	402 08
Salaries and wages	643 00
Total	$9,741 60
Government aid for 1923	$2,692 20

HOUSE OF PROVIDENCE, DUNDAS.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Patients.

In residence, 1st October, 1922	148
Admitted	80
Total number of inmates	228
Discharged	69
Died	14
In residence, 30th September, 1923	145
	228

Places Admitted From.

City of Hamilton	121
County of Wentworth	19
Other counties in Ontario	84
Immigrants, foreigners, etc.	4
	228

Sex.

Male	89
Female	139
	228

Receipts.

From the Province of Ontario	$5,684 40
From the Town of Dundas	1,954 26
From the County of Wentworth	.....
From other municipalities	.....
From inmates	12,846 97
Income from property	350 00
Subscriptions and donations of private individuals	4,930 01
Other sources	10,718 49
Total	$36,484 13

Expenditures.

Food of all kinds	$17,697 93
Clothing, furniture and furnishings	2,247 02
Fuel, light and cleaning	4,344 16
Salaries	1,181 70
Repairs	1,466 94
Other expenditures	6,694 60
Medicine and medical comforts	248 10
Taxes and insurance	2,638 20
Total	$36,518 65
Government aid for 1923	$5,546 60

THE ELLIOTT HOME, GUELPH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	26
Admitted	4
Total number of inmates	30
Discharged	3
Died	2
In residence, 30th September, 1923	25
	30

Places Admitted From.

City of Guelph	19
County of Wellington	2
Other counties in Ontario	9
Immigrants, foreigners, etc.	.....
	30

Sex.

Male	8
Female	22
	30

Revenue.

From the Province of Ontario	$963 20
From the City of Guelph	.....
From the County of Wellington	.....
Payments from inmates	8,597 20
Subscriptions and donations	357 24
From other sources	1,064 90
Income from property	.....
Total	$10,982 54

Expenditures.

Food of all kinds	$3,014 50
Clothing, furniture and furnishings	269 44
Fuel, gas, etc	1,734 53
Salaries and wages	3,362 07
Repairs	478 46
Other expenses	683 59
Medicine and medical comforts	.....
Repairs, additions	1,645 09
Total	$11,187 68
Government aid for 1923	$958 70

HOUSE OF PROVIDENCE, GUELPH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	38
Admitted	16
Total number of inmates	54
Discharged	7
Died	7
In residence, 30th September, 1923	40
	54

Places Admitted From.

From the City of Guelph	36
From the County of Wellington	8
Other counties in Ontario	9
Foreigners, etc	1
	54

Sex.

Male	35
Female	19
	54

Receipts.

From the Province of Ontario	$1,438 60
From the City of Guelph	3,784 50
From inmates	1,133 50
From the County of Wellington	200 00
Subscriptions, donations and bequests	1,923 05
From other sources	.....
Total	$8,479 65

Expenditures.

Food of all kinds	$4,370 67
Clothing and furnishings	721 02
Fuel, light and cleaning	1,401 07
Salaries and wages	460 20
Ordinary repairs	453 30
Live stock and farm grounds	230 06
Other expenses	356 82
Medicine and medical comforts	144 22
Total	$8,137 36
Government aid for 1923	$1,454 30

HOME FOR AGED WOMEN, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	51
Admitted	9
Total number of inmates	60
Number discharged	1
Number of deaths	7
In residence, 30th September, 1923	52
	60

Places Admitted From.

City of Hamilton	60
	60

Sex.

Female	60
	60

Receipts.

From the Government of Ontario	$1,828 20
From the City of Hamilton	3,600 20
Income from property	3,370 18
Subscriptions and donations of private individuals	4,152 47
From inmates	3,750 00
From all other sources	4,051 22
Total	$20,752 27

Expenditures.

Food of all kinds	$4,307 43
Clothing, furniture, etc	567 02
Fuel, gas, cleaning, etc	2,310 28
Salaries and wages	4,964 98
Ordinary repairs	1,130 55
Other expenses	6,013 17
Medicine and medical comforts	54 47
Total	$19,347 90
Government aid for 1923	$1,849 50

HOUSE OF REFUGE, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	118
Admitted.....	61
Total number of inmates....	179
Discharged.....	27
Died.....	22
In residence, 30th September, 1923.....	130
	179

Places Admitted From.

City of Hamilton.....	179
County of Wentworth.....	.....
	179

Sex.

Male.....	107
Female.....	72
	179

Receipts.

From the Government of Ontario.	$4,194 50
From the City of Hamilton.....	28,864 09
From other municipalities.....	.....
From inmates.....	2,239 50
Subscriptions, donations of private individuals.....	506 00
From all other sources.....	7 23
Total.....	$35,811 32

Expenditures.

Food of all kinds.....	$11,288 36
Clothing, furnishings, etc.....	1,222 35
Fuel, light, cleaning, etc.....	6,397 31
Salaries and wages.....	10,274 49
Repairs and additions.....	5,105 63
Taxes and insurance.....	140 31
Other expenses.....	1,310 20
Medicine and medical comforts..	72 67
Total.....	$35,811 32
Government aid for 1923.....	$4,522 60

ST. PETER'S HOME, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	12
Admitted.....	5
Total number of inmates....	17
Discharged.....	1
Died.....	2
In residence, 30th September, 1923.....	14
	17

Places Admitted From.

City of Hamilton.....	16
County of Wentworth and other counties.....	1
Immigrants, foreigners, etc.....	.....
	17

Sex.

Male.....	17
Female.....	.....
	17

Receipts.

From the Ontario Government ..	$394 80
From the City of Hamilton.....	460 24
From the County of Wentworth..	.....
From inmates.....	2,752 00
From subscriptions, donations, etc.....	364 70
From other sources.....	2,577 26
Income from property belonging to Home.....	37 00
Total.....	$6,586 00

Expenditures.

Food of all kinds.....	$1,378 07
Clothing, furnishings, etc.....	146 58
Fuel, light and cleaning.....	886 96
Salaries and wages.....	2,234 14
Repairs,.....	370 15
Livestock and feed.....	13 75
Other expenses.....	457 75
Medicine and medical comforts..	.....
Farm and grounds.....	116 88
Total.....	$5,604 28
Government aid for 1923.....	$495 30

HOME FOR FRIENDLESS WOMEN AND INFANTS, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	19
Admitted	30
Total number of inmates	49
Discharged	27
Died	.....
In residence, 30th September, 1923	22
	49

Places Admitted From.

City of Kingston	41
County of Frontenac	8
Other counties in Ontario	.....
Immigrants, foreigners, etc.	.....
	49

Sex.

Male	23
Female	26
	49

Receipts.

From the Province of Ontario	$365 95
From the City of Kingston	.....
From the County of Frontenac	713 50
From inmates	1,173 00
Subscriptions and donations	541 00
Other sources	625 03
Total	$3,418 48

Expenditures.

Food of all kinds	$610 78
Clothing and furnishings	131 95
Fuel, light and cleaning, etc.	633 85
Salaries and wages	780 00
Repairs and additions	817 41
Other expenses	296 45
Total	$3,270 44
Government aid for 1923	$437 35

HOUSE OF REFUGE, KINGSTON.

Full particulars of the operations of this institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	45
Admitted	20
	65
Discharged	13
Died	4
In residence, 30th September, 1923	48
	65

Places Admitted From.

City of Kingston	29
County of Frontenac	22
Other counties of Ontario	14
Immigrants, foreigners, etc.	.....
	65

Sex.

Male	35
Female	30
	65

Receipts.

From the Province of Ontario	$1,507 00
From the City of Kingston	1,000 00
County of Frontenac	3,198 93
Lennox and Addington	2,230 49
Payments from inmates	968 85
Income from property	1,246 18
Subscriptions and donations	246 00
Other sources	201 00
Total	$10,598 45

Expenditures.

Food of all kinds	$4,342 58
Clothing, furniture and furnishings	993 50
Fuel, light and cleaning	1,169 45
Salaries and wages	2,198 05
Repairs, ordinary	298 42
Farming	191 09
Other expenses	930 79
Medicine and medical comforts	62 35
Repairs, additions	838 85
Printing and postage, etc.	61 98
Total	$11,087 06
Government aid for 1923	$1,667 40

HOUSE OF PROVIDENCE, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	148
Admitted	68
Total number of inmates....	216
Discharged	42
Died	23
In residence, 30th September, 1923	151
	216

Places Admitted From.

City of Kingston	65
County of Frontenac	17
Other counties	127
Immigrants, foreigners, etc.	7
	216

Sex.

Male	89
Female	127
	216

Receipts.

From the Province of Ontario...	$5,734 00
From the City of Kingston	300 00
From the County of Frontenac..	967 88
From other municipalities	2,962 28
Income from property	762 00
Payment from inmates	11,368 19
Subscriptions and donations	11,106 42
Other sources	15,893 42
Total	$49,094 19

Expenditures.

Food of all kinds	$22,835 45
Clothing, furnishings, etc.	5,044 06
Salaries and wages	805 31
Fuel, light and cleaning	10,560 78
Repairs, ordinary and additions .	4,513 32
Taxes and insurance	1,197 87
Other expenses	2,176 00
Medicine and medical comforts..	1,292 72
Printing and postage	565 61
Total	$48,991 12
Government aid for 1923	$5,809 90

HOME FOR AGED PEOPLE, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922 ..	73
Admitted	25
Total number of inmates....	98
Discharged	15
Died	16
In residence, 30th September, 1923	67
	98

Places Admitted From.

City of London	78
Other counties of Ontario	11
County of Middlesex	9
Immigrants, foreigners, etc.	.....
	98

Sex.

Male	45
Female	53
	98

Receipts.

From the Province of Ontario...	$2,670 40
From the City of London	7,818 60
From the County of Middlesex..	394 17
From other municipalities	.....
Payment from inmates	6,560 38
Subscriptions and donations	3,472 28
Other sources	1,332 67
Total	$22,248 50

Expenditures.

Food of all kinds	$8,246 34
Clothing, furniture and furnishings	2,477 30
Fuel, light and cleaning	3,598 55
Salaries and wages	8,346 39
Repairs, ordinary	6,468 33
Drugs and medicines	212 35
Other expenses	1,719 38
Farm and grounds	815 34
Total	$31,883 98
Government aid for 1923	$2,584 80

HOUSE OF PROVIDENCE, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	190
Admitted	86
Total number of inmates	276
Discharged	62
Died	25
In residence, 30th September, 1923	189
	276

Places Admitted From.

City of London	81
County of Middlesex	13
Other counties in Ontario	182
Immigrants, foreigners, etc.	.....
	276

Sex.

Male	112
Female	164
	276

Receipts.

From the Province of Ontario	$6,856 90
From the City of London	.....
From other municipalities	.....
Payment from inmates	12,430 39
Subscriptions and donations	10,463 78
Other sources	.....
Total	$29,751 07

Expenditures.

Food of all kinds	$12,633 97
Clothing, furniture and furnishings	2,288 95
Fuel, light and cleaning	7,416 59
Salaries and wages	1,206 00
Repairs, ordinary	4,402 38
Taxes, insurance, etc.	1,044 27
Other expenses	439 50
Medicine and medical comforts	291 59
Total	$29,723 25
Government aid for 1923	$7,381 60

CONVALESCENT HOME, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	4
Admitted	4
Total number of inmates	8
Discharged	4
Died	.....
In residence, 30th September, 1923	4
	8

Places Admitted From.

City of London	8
County of Middlesex and other counties	.....
	8

Sex.

Male	1
Female	7
	8

Receipts.

From the Province of Ontario	$105 90
From the City of London	.....
Payment from inmates	403 00
Subscriptions and donations	473 00
Other sources	37 91
Total	$1,019 81

Expenditures.

Food of all kinds	$521 36
Clothing, furniture and furnishings	.....
Fuel, light, and cleaning	308 12
Salaries and wages	209 25
Repairs, ordinary	23 77
Other expenses	125 43
Total	$1,187 93
Government aid for 1923	$111 10

THE REFUGE OF OUR LADY OF CHARITY, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	182
Admitted	107
Total number of inmates	289
Discharged	100
Died	.....
In residence, 30th September, 1923	189
	289

Places Admitted From.

City of Ottawa	223
County of Carleton	13
Other counties in Ontario	20
Immigrants, foreigners, etc.	33
	289

Sex.

Female	289
	289

Receipts.

From the Government of Ontario	$6,047 95
From the City of Ottawa	860 25
County of Carleton	.....
From payments made by inmates	2,970 50
Subscriptions, donations, etc.	1,988 65
Other sources	23,450 00
Income from Home property	.....
Total	$35,317 35

Expenditures.

Food of all kinds	$17,501 93
Clothing and furnishings	5,381 50
Fuel, light, cleaning, etc.	11,102 08
Salaries and wages	2,125 00
Repair	1,929 30
Live stock and farm grounds	3,173 75
Taxes and insurance	1,896 75
Medicine and medical comforts	915 00
Repairs, additions	957 39
Other expenses	982 03
Total	$45,964 73
Government aid for 1923	$5,903 20

THE HOME FOR FRIENDLESS WOMEN, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	41
Admitted	87
Total number of inmates	128
Discharged	89
Died	2
In residence, 30th September, 1923	37
	128

Places Admitted From.

City of Ottawa	89
County of Carleton	.....
Other counties in Ontario	26
Immigrants, etc.	13
	128

Sex.

Male	22
Female	106
	128

Receipts.

From the Province of Ontario	$1,046 00
From the City of Ottawa	675 00
From the County of Carleton	100 00
Payment from inmates	36 00
Subscriptions and donations	614 50
From all other sources and laundry	30,519 06
Total	$32,990 56

Expenditures.

Food of all kinds	$3,029 10
Clothing, furniture and furnishings	1,605 91
Fuel, light and cleaning	3,138 72
Salaries and wages	13,990 21
Repairs, ordinary	711 02
Taxes and insurance	549 34
Medicine and medical comforts	549 00
Repairs, additions	1,197 24
Other expenses	8,012 76
Total	$32,783 30
Government aid for 1923	$1,116 10

HOME FOR THE AGED, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, October 1st, 1922	23
Admitted	11
Total number of inmates	34
Discharged	9
Died	2
In residence, 30th September, 1923	23
	34

Places Admitted From.

City of Ottawa	27
County of Carleton	3
Other counties	1
Immigrants, foreigners	3
	34

Sex.

Male	34
Female	.....
	34

Receipts.

From the Government of Ontario	$935 30
From the City of Ottawa	1,350 00
From the County of Carleton	600 00
From other municipalities	.....
From payments made by inmates	$1,235 98
Subscriptions, donations, etc.	1,375 00
Income from property	140 00
Other sources	1,452 90
Total	$7,089 18

Expenditures.

Food of all kinds	$1,408 72
Clothing and furnishings	.....
Fuel, light, cleaning, etc	2,192 12
Salaries and wages, etc	2,285 00
Repairs	912 54
Taxes and insurance	514 10
Other expenses	809 31
Medicine and medical comforts	37 00
Total	$8,158 79
Government aid for 1923	$924 50

REFUGE BRANCH, ORPHANS' HOME, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	20
Admitted	4
Total number of inmates	24
Discharged	4
Died	2
In residence, 30th September, 1923	18
	24

Places Admitted From.

City of Ottawa	18
County of Carleton	1
Other counties in Ontario	5
Immigrants, etc	.....
	24

Sex.

Female	24
	24

Receipts.

From the Province of Ontario	$1,752 85
From the City of Ottawa	2,025 00
From the County of Carleton	300 00
Payment from inmates	3,020 00
Income from property	1,821 02
Subscriptions and donations, etc.	8,072 66
Total	$16,991 53

Expenditures.

Food of all kinds	$4,930 63
Clothing, furniture and furnishings	2,633 34
Fuel, light and cleaning	3,339 75
Salaries and wages	5,153 25
Taxes and insurance	497 85
Repairs, ordinary	479 60
Medicine, medical comforts	184 45
Repairs, additions	983 83
Other expenses	645 95
Total	$18,848 65
Governmentaid for 1923	$724 10

ST. CHARLES' HOSPICE, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	212
Admitted	78
Total number of inmates....	290
Discharged	36
Died	36
In residence, 30th September, 1923	218
	290

Places Admitted From.

City of Ottawa	132
County of Carleton	41
Other counties	34
Immigrants, foreigners, etc.	83
	290

Sex.

Male	107
Female	183
	290

Receipts.

From the Government of Ontario.	$7,903 30
From the City of Ottawa	3,780 00
From the County of Carleton....	50 00
From other municipalities	1,654 00
Income from property belonging to the House	.....
From payments made by inmates.	7,125 00
Subscriptions, donations, etc....	2,457 68
Other sources	1,839 49
Total	$24,809 47

Expenditures.

Food of all kinds	$10,971 66
Clothing and furnishings	674 00
Fuel, light, cleaning, etc	8,010 64
Salaries and wages	1,640 00
Repairs	1,427 60
Taxes and insurance	956 57
Other expenses	914 65
Medicine and medical comforts..	175 94
Total	$24,771 06
Government aid for 1923	$7,833 70

ST. PATRICK'S REFUGE, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	115
Admitted	34
Total number of inmates....	149
Discharged	19
Died	15
In residence, 30th September, 1923	115
	149

Places Admitted From.

City of Ottawa	98
County of Carleton	19
Other counties in Ontario	30
Immigrants, etc	2
	149

Sex.

Male	56
Female	93
	149

Receipts.

From the Government of Ontario.	$5,982 20
From the City of Ottawa	2,497 43
From the County of Carleton ...	50 00
From other municipalities	.....
From payments made by inmates.	7,008 87
Subscriptions, donations, etc....	12,895 39
Other sources	11,505 82
Total	$39,939 71

Expenditures.

Food of all kinds	$7,769 82
Clothing and furnishings	1,266 19
Fuel, light, cleaning, etc	5,010 71
Salaries and wages	3,939 61
Repairs, ordinary	1,729 09
Additions	.....
Live stock and farm grounds....	4,059 57
Taxes and insurance	1,965 62
Medicine and medical comforts..	114 80
Other expenses	962 77
Total	$26,818 18
Government aid for 1923	$4,125 60

CONVALESCENT HOME FOR WOMEN, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Patients.

In residence, 1st October, 1922	6
Admitted	117
Total number of inmates	123
Discharged	118
Died	.....
In residence, 30th September, 1923	5
	123

Places Admitted From.

City of Ottawa	121
County of Carleton and other counties	2
Immigrants, foreigners	.....
	123

Sex.

Male	.....
Female	123
	123

Receipts.

From the Province of Ontario	$258 90
From the City of Ottawa	540 00
From other municipalities	.....
Payments from inmates	1,845 70
Income from property belonging to the Home	.....
Subscriptions, donations, etc.	16 10
Other sources	.....
Other receipts included in general fund of May Court Club	.....
Total	$2,660 70

Expenditures.

Food of all kinds	$1,250 31
Clothing and furnishings	428 01
Fuel, light and cleaning	682 11
Salaries and wages	2,603 30
Repairs, ordinary	283 57
Medicine and medical comforts	75 60
Other expenses	93 06
Repairs and additions	625 03
Total	$6,040 99
Government aid for 1923	$242 30

ELIZABETH RESIDENCE FOR ELDERLY LADIES, OTTAWA.

Full particulars of the operations of this institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	17
Admitted	7
Total number of inmates	24
Discharged	7
Deaths	2
In residence, 30th September, 1923	15
	24

Places Admitted From.

City of Ottawa	19
Other cities and counties	1
Immigrants, foreigners, etc.	4
	24

Sex.

Female	24
	24

Receipts.

From the Province of Ontario	$582 40
From the City of Ottawa	.....
From inmates	6,460 14
Subscriptions and donations	.....
From other sources	.....
Total	$7,042 54

Expenditures.

Food of all kinds	$2,090 22
Clothing, furnishings, etc.	211 72
Fuel, light, cleaning, etc.	1,506 40
Salaries and wages	1,569 50
Repairs	129 36
Other expenses	1,536 54
Medicine and medical comforts	109 00
Taxes and insurance	293 62
Total	$7,446 36
Government aid for 1923	$548 90

THE PETERBOROUGH PROTESTANT HOME.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	36
Admitted	12
Total number of inmates	48
Discharged	10
Died	2
In residence, 30th September, 1923	36
	48

Places Admitted From.

City of Peterborough	48
County of Peterborough	.....
	48

Sex.

Male	24
Female	24
	48

Receipts.

From the Province of Ontario	$1,098 50
From the City of Peterborough	3,670 00
From inmates themselves	2,420 50
Income from property belonging to the Home	.....
Subscriptions, donations, from private individuals	300 80
From all sources not above mentioned	1,519 09
Total	$9,008 89

Expenditures.

Food of all kinds	$2,379 08
Clothing and furnishings	459 89
Fuel, light and cleaning	2,143 45
Repairs, ordinary	393 87
Salaries and wages	3,289 50
Other expenses	860 55
Medicine and medical comforts	87 84
Total	$9,614 18
Government grant for 1923	$1,159 90

THE PARRY SOUND DISTRICT HOUSE OF REFUGE, POWASSAN.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	20
Admitted	14
Total number of inmates	34
Discharged	5
Died	9
In residence, 30th September, 1923	20
	34

Places Admitted From.

District of Parry Sound	34
Other counties	.....
Immigrants, etc	.....
	34

Sex.

Male	24
Female	10
	34

Receipts.

From the Government of Ontario	$943 90
From other municipalities	6,082 83
From payments made by inmates	135 00
Subscriptions, donations, etc	88 00
Received from all other sources	614 46
Total	$7,864 19

Expenditures.

Food of all kinds	$1,827 26
Clothing and furnishings	580 49
Fuel, light, cleaning, etc	857 23
Salaries and wages	2,833 81
Repairs and additions	3,131 28
Other expenses	1,068 69
Medicine and medical comforts	.....
Taxes and insurance	.....
Total	$10,298 76
Government aid for 1923	$757 60

THE HOUSE OF PROVIDENCE, PETERBOROUGH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	69
Admitted	29
Total number of inmates	98
Discharged	17
Died	18
In residence, 30th September, 1923	63
	98

Places Admitted From.

City of Peterborough	46
County of Peterborough	7
From other counties	45
Immigrants, foreigners, etc.	.....
	98

Sex.

Male	36
Female	62
	98

Receipts.

From the Province of Ontario	$2,611 00
From the City and County of Peterborough	815 00
From municipalities for board of inmates	.....
From inmates	3,857 55
Subscriptions and donations	1,886 45
Other sources	169 32
Total	$9,339 32

Expenditures.

Food of all kinds	$5,240 72
Clothing and furnishings	1,389 35
Fuel, light and cleaning	2,434 88
Repairs, ordinary	538 68
Other expenses	756 22
Medicine and medical comforts	199 47
Salaries and wages	429 48
Total	$10,988 80
Government aid for 1923	$2,582 50

THE THOMAS WILLIAMS HOME, ST. THOMAS.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922	22
Admitted	6
Total number of inmates	28
Discharged	2
Died	3
In residence, 30th September, 1923	23
	28

Places Admitted From.

City of St. Thomas	28
	28

Sex.

Male	15
Female	13
	28

Receipts.

From the Province of Ontario	$721 20
From the City of St. Thomas	.....
From payments by inmates	716 67
Subscriptions, etc.	745 00
Income from property	3,910 49
From other sources	20 47
Total	$6,113 83

Expenditures.

Food of all kinds	$1,691 25
Clothing and furnishings	564 55
Fuel, light, cleaning, etc.	1,671 99
Salaries and wages	1,271 20
Repairs, ordinary	467 74
Other expenses	101 04
Medicine and medical comforts	305 88
Repairs, additions	.....
Total	$6,073 65
Government aid for 1923	$829 80

HOUSE OF REFUGE, DISTRICT OF ALGOMA, SAULT STE. MARIE.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	48
Admitted	28
Total number of inmates....	76
Discharged	20
Died	7
In residence, 30th September, 1923	49
	76

Places Admitted From.

Town of Sault Ste. Marie	46
District of Algoma	.....
Other counties	23
Immigrants	7
	76

Sex.

Male	60
Female	16
	76

Receipts.

From the Province of Ontario...	$1,889 50
From City of Sault Ste. Marie...	4,071 12
From inmates themselves	.....
Subscriptions, donations and bequests of private individuals..	641 15
From other sources	7,521 91
From other municipalities	2,666 07
Total	$16,789 75

Expenditures.

Food of all kinds	$5,517 54
Light, fuel, cleaning, etc	1,667 97
Repairs, ordinary	552 28
Medicine and medical comforts..	463 33
Salaries and wages	4,487 00
Clothing and furnishings	640 95
Farming	591 32
Repairs, additions	930 46
Other expenses	1,976 51
Total	$16,827 36
Government aid for 1923	$1,939 80

AGED MEN'S HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	50
Admitted	22
Total number of inmates.....	72
Discharged	17
Died	8
In residence, 30th September, 1923	47
	72

Places Admitted From.

City of Toronto	62
County of York and other counties	8
Immigrants, etc	2
	72

Sex.

Male	72
	72

Receipts.

From the Government of Ontario	$1,780 60
From the City of Toronto	855 00
From payments made by inmates	11,738 50
Subscriptions, donations, etc....	168 51
Received from all other sources..	4,182 88
Total	$18,725 49

Expenditures.

Food of all kinds	$4,935 49
Clothing and furnishings	1,337 56
Salaries and wages	6,263 04
Fuel, light, cleaning, etc	2,847 85
Repairs	1,864 63
Other expenses	1,115 69
Medicine and medical comforts..	41 58
Taxes and insurance	72 52
Total	$18,478 36
Government aid for 1923	$1,789 50

AGED WOMEN'S HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922..	109
Admitted	28
Total number of inmates....	137
Discharged	8
Deaths	19
In residence, 30th September, 1923	110
	137

Places Admitted From.	
City of Toronto	126
Other cities and counties	2
County of York	9
Immigrants, foreigners, etc.	.....
	137

Sex.	
Female	137
	137

Receipts.	
From the Province of Ontario...	$3,917 90
From the City of Toronto	1,286 00
From inmates	26,454 08
Subscriptions and donations	177 33
From other sources	4,035 76
Total	$35,871 07

Expenditures.	
Food of all kinds	$10,514 81
Clothing, furnishings, etc	2,557 26
Fuel, light, cleaning, etc	5,416 21
Salaries and wages	10,415 36
Repairs	3,997 38
Other expenses	2,744 32
Medicine and medical comforts..	71 85
Taxes and insurance	105 69
Total	$35,822 88
Government aid for 1923	$3,860 30

CHURCH HOME FOR THE AGED, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922..	40
Admitted	5
Total number of inmates....	45
Discharged	2
Died	3
In residence, 30th September, 1923	40
	45

Places Admitted From.	
City of Toronto	36
County of York	2
Other counties of Ontario	5
Immigrants, etc	2
	45

Sex.	
Male	2
Female	43
	45

Receipts.	
From the Government of Ontario	$1,456 50
From the City of Toronto	358 00
From other municipalities	.....
From payments made by inmates	11,685 22
Income from property belonging to Home	.....
Subscriptions, donations, etc....	595 75
Other sources	853 97
Total	$14,949 44

Expenditures.	
Food of all kinds	$5,167 86
Clothing and furnishings	460 51
Fuel, light and cleaning, etc	2,576 82
Salaries and wages	5,569 68
Repairs	999 20
Other expenses	803 74
Medicine and medical comforts..	43 75
Total	$15,621 56
Government aid for 1923	$1,446 80

GOOD SHEPHERD FEMALE REFUGE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922...	156
Admitted	83
Total number of inmates....	239
Discharged	92
Died	....
In residence, 30th September, 1923	147
	239

Places Admitted From.

City of Toronto	183
County of York and other counties	56
Immigrants and foreigners	.....
	239

Sex.

Female	239
	239

Receipts.

From the Province of Ontario...	$5,623 40
From the City of Toronto	200 00
From inmates	65 00
Subscriptions and donations	2,000 00
From other sources and laundry	25,120 00
Federations of Charities	.....
Total	$33,008 40

Expenditures.

Food of all kinds	$17,858 71
Clothing, furniture and furnishings	4,250 10
Fuel, light and cleaning	4,866 35
Salaries and wages	725 00
Repairs	2,925 31
Drugs and medicines	1,852 00
Other expenditures	977 66
Total	$33,455 13
Government grant for 1923	$5,500 60

THE HAVEN, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates

In residence, 1st October, 1922..	90
Admitted	116
Total number of inmates....	206
Discharged	100
Deaths	3
In residence, 30th September, 1923	103
	206

Places Admitted From.

City of Toronto	185
County of York	....
Other counties	21
Immigrants, etc	....
	206

Sex.

Male (infants)	....
Female	206
	206

Receipts.

From the Province of Ontario...	$3,265 95
From the City of Toronto	1,999 92
From inmates	4,919 25
Income from laundry, etc	12,434 04
Subscriptions and donations	3,682 55
From other sources	1,620 24
Total	$27,921 95

Expenditures.

Food of all kinds	$7,917 16
Clothing, furnishings, etc	2,014 24
Fuel, light, cleaning, etc	6,018 56
Salaries and wages	7,651 18
Repairs	2,150 01
Other expenses	512 83
Medicine and medical comforts..	296 27
Taxes and insurance	.....
Laundry	1,998 42
Laundry equipment	2,209 14
Total	$30,767 81
Government aid for 1923	$3,001 85

HILLCREST CONVALESCENT HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	30
Admitted	156
Total number of inmates....	186
Discharged	166
Died	....
In residence, 30th September, 1923	20
	186

Places Admitted From.

City of Toronto	173
County of York	....
Other counties	10
Immigrants, foreigners, etc.	3
	186

Sex.

Male	1
Female	185
	186

Receipts.

From the Province of Ontario...	$230 20
From the City of Toronto	1,182 00
Payment from inmates	13,521 98
Income from property belonging to the Home	....
Subscriptions and donations	....
Received from all other sources not enumerated above	35 16
Total	$14,969 34

Expenditures.

Food of all kinds	$5,499 56
Furnishings, etc	873 14
Fuel, light and cleaning	2,160 51
Salaries and wages	4,244 00
Ordinary repairs, etc	306 85
Other expenses	630 07
Medicine and medical comforts..	45 96
Taxes and insurance	19 50
Repairs, additions	1,350 00
Total	$15,129 59
Government aid for 1923	$252 50

HOUSE OF INDUSTRY, TORONTO.

Full particulars of the operations of this institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	114
Admitted	109
Total number of inmates....	223
Discharged	96
Died	21
In residence, 30th September, 1923	106
	223

Places Admitted From.

City of Toronto	223
County of York and other counties	....
Immigrants and foreigners	....
	223

Sex.

Male	167
Female	56
	223

Receipts.

From the Province of Ontario...	$4,333 50
From the City of Toronto	215,293 80
From inmates	2,961 05
Income from property belonging to the House	.....
Subscriptions and donations	501 50
From other sources	2,368 36
Bank overdraft, 1st October, 1923	14,075 24
Total	$239,533 45

Expenditures.

Food of all kinds	$8,353 89
Clothing, furniture and furnishings	533 80
Fuel, light and cleaning	3,123 09
Salaries and wages	4,154 51
Repairs	3,634 57
Outdoor and casual poor	191,232 45
Other expenditures	864 64
Medicine and medical comforts..	188 72
Advertising and printing	28 72
Taxes and insurance	482 81
Bank overdraft, 1st Oct., 1922...	26,936 25
Total	$239,533 45
Government aid for 1923	$4,324 20

HOUSE OF PROVIDENCE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	390
Admitted	396
Total number of inmates....	786
Discharged	312
Died	47
In residence, 30th September, 1923	427
	786

Places Admitted From.

City of Toronto	711
County of York	2
Other counties in Ontario	5
Immigrants and foreigners	68
	786

Sex.

Male	474
Female	312
	786

Receipts.

From the Province of Ontario...	$15,786 40
From the City of Toronto	27,000 00
Other municipalities	.....
From inmates, in payment of board	14,976 78
Subscriptions, donations and bequests of private individuals..	3,024 73
From other sources	21,404 35
Income from property	78 75
Total	$82,271 01

Expenditures.

Food of all kinds	$36,979 05
Clothing, furniture and furnishings	5,819 54
Fuel, light and cleaning	18,738 05
Salaries and wages	3,515 87
Drugs and medicines	942 02
Ordinary repairs	6,100 91
Other expenditures	451 27
Taxes and insurance	1,301 90
Total	$73,848 61
Government aid for 1923	$15,089 50

HUMEWOOD HOUSE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	21
Admitted	56
Total number of inmates....	77
Discharged	62
Died	....
In residence, 30th September, 1923	15
	77

Places Admitted From.

City of Toronto	63
County of York	1
Other counties of Ontario	13
Immigrants, foreigners, etc	....
	77

Sex

Male (infants)	18
Female	59
	77

Receipts.

From the Province of Ontario...	$329 95
From inmates	553 90
Subscriptions, donations of private individuals	1,664 86
From other sources	2,131 02
From Federation of Charities....	4,012 42
Total	$8,692 15

Expenditures.

Food of all kinds	$1,777 02
Clothing, furnishings, etc	442 26
Fuel, light, cleaning, etc	758 70
Salaries and wages	1,630 00
Repairs	123 43
Other expenses	4,118 00
Medicine and medical comforts..	266 88
Total	$9,116 29
Government aid for 1923	$394 00

JEWISH OLD FOLKS' HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922...	26
Admitted.....	7
Total number of inmates....	33
Discharged.....	....
Deaths.....	7
In residence, 30th September, 1923.....	26
	33

Places Admitted from.	
City of Toronto.....	33
County of York and other counties.....	....
Immigrants, etc.....	....
	33

Sex.	
Male.....	15
Female.....	18
	33

Receipts.	
From the Province of Ontario...	$1,019 10
From the City of Toronto.....	....
From inmates.....	....
Subscriptions and donations.....	11,598 39
From other sources.....	....
Industry (sewing).....	....
Total.....	$13,526 49

Expenditures.	
Food of all kinds.....	$3,856 52
Clothing, furnishings, etc.....	93 09
Fuel, light, cleaning, etc.....	1,454 31
Salaries and wages.....	5,457 17
Repairs.....	167 52
Rent.....	.....
Drugs and medicines.....	252 78
Other expenses.....	2,230 35
Total.....	$13,516 74
Government aid for 1923.....	$963 10

INDUSTRIAL REFUGE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.	
In residence, 1st October, 1922	68
Admitted.....	10
Total number of inmates....	78
Discharged.....	12
Died.....	
In residence, 30th September, 1923.....	65
	78

Places Admitted From.	
City of Toronto.....	61
County of York and other counties	17
Immigrants, foreigners, etc.....	....
	78

Sex.	
Female.....	78
	78

Receipts.	
From the Province of Ontario...	$2,141 10
From the City of Toronto.....	1,090 00
Payments from inmates.....	1,454 11
Subscriptions, donations, etc....	173 33
Laundry, sewing, etc.....	21,154 91
Other sources.....	366 67
Federation community service...	6,584 22
Total.....	$32,964 34

Expenditures.	
Food of all kinds.....	$5,178 75
Clothing and furnishings.....	1,290 25
Fuel, light and cleaning.....	4,031 01
Salaries and wages.....	9,917 20
Repairs, ordinary.....	4,649 96
Medicine and medical comforts..	88 52
Other expenses.....	5,130 05
Laundry expenses.....	2,622 52
Total.....	$32,908 26
Government aid for 1923.....	$2,293 60

THE JULIA GREENSHIELDS HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates

In residence, 1st October, 1922..	30
Admitted	9
Total number of inmates....	39
Discharged	3
Died	6
In residence, 30th September, 1923	30
	39

Places Admitted From.

City of Toronto	37
County of York	....
Other counties	2
	39

Sex.

Female	39
	39

Receipts.

From the Province of Ontario...	$1,096 60
From the City of Toronto	200 00
Payments from inmates	6,862 22
Income from property belonging to the Home	292 38
Subscriptions, donations	7,312 09
Other sources	....
Total	$15,763 29

Expenditures.

Food of all kinds	$4,411 45
Clothing and furnishings	465 51
Fuel, light and cleaning	1,721 31
Salaries and wages	3,591 70
Repairs	751 92
Other expenses	4,788 16
Medicine and medical comforts..	25 77
Repairs, additions	....
Total	$15,755 82
Government grant for 1923	$1,052 00

S. A. RESCUE HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	69
Admitted	356
Total number of inmates....	425
Discharged	349
Deaths	5
In residence, 30th September, 1923	71
	425

Places Admitted From.

City of Toronto	366
County of York and other counties	55
Immigrants, etc	4
	425

Sex.

Male	56
Female	369
	425

Receipts.

From the Province of Ontario...	$1,778 85
From the City of Toronto	1,236 00
From inmates	2,628 51
Subscriptions and donations	452 56
From other sources	8,362 10
Industry (sewing)	2,135 89
Total	$16,593 91

Expenditures.

Food of all kinds	3,079 08
Clothing, furnishings, etc	648 60
Fuel, light, cleaning, etc	2,028 28
Salaries and wages	4,667 27
Repairs	20 90
Rent	4,440 00
Drugs and medicines	40 52
Other expenses	1,740 76
Total	$16,665 41
Government aid for 1923	$1,911 70

VICTOR HOME FOR YOUNG WOMEN, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	25
Admitted	119
Total number of inmates....	144
Discharged	118
Deaths	1
In residence, 30th September, 1923	25
	144

Places Admitted From.

City of Toronto	123
Immigrants, foreigners, etc....	21
Other counties of Ontario.....	
County of York	
	144

Sex.

Female	21
Male (infants)	123
	144

Receipts.

From the Province of Ontario...	$848 30
From the City of Toronto.....	200 00
From inmates.....	....
Subscriptions, donations of private individuals.....	35 00
From other sources.....	4,186 00
Income from property.....	300 00
Total.....	$5,569 30

Expenditures.

Food of all kinds.....	$1,543 32
Clothing, furnishings, etc.....	147 98
Fuel, light, cleaning, etc.....	737 93
Salaries and wages.....	1,221 00
Repairs.....	683 06
Other expenses.....	1,236 01
Total.....	$5,569 30
Government aid for 1923.....	$878 30

HOME FOR THE FRIENDLESS, WINDSOR.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1922..	27
Admitted	26
Total number of inmates....	53
Discharged	15
Died	4
In residence, 30th September, 1923	34
	53

Places Admitted From.

City of Windsor	53
County of Essex	....
Immigrants, foreigners, etc.....	....
	53

Sex.

Male	34
Female	19
	53

Receipts.

From the Province of Ontario...	$1,163 50
From the City of Windsor.....	4,800 00
From inmates.....	414 00
Subscriptions and donations.....	47 11
Other sources.....	....
Total.....	$6,424 61

Expenditures.

Food of all kinds.....	$2,898 62
Clothing and furnishings.....	279 08
Fuel, light and cleaning.....	731 00
Repairs, ordinary.....	185 71
Salaries and wages.....	1,166 50
Other expenses.....	356 12
Medicine and medical comforts..	146 65
Total.....	$5,763 68
Government aid for 1923.....	$1,141 80

ORPHAN ASYLUMS

The statistical tables on the following pages of this report show an increase in the contributions to several of the Institutions, while in some cases there is a falling off as compared with last year.

The total number of children cared for in the Orphanages during the year was 4,540, as compared with 4,696 in 1922.

In the tables will be found full details of the receiving and discharging of children, etc.

The statistics relating to the sex and previous residence of the inmates are given in the following summary:

Sex.

Male	2,249
Female	2,291
	4,540

Previous Residence.

Received from cities in which Orphanages are located	3,103
Received from counties in which Orphanages are located	254
Received from other counties in the Province	1,130
Immigrants and foreigners and unknown	48
	4,540

TABLE I.—Schedule C—Orphanages.

Name of Orphanage.	Location.	No. in residence 1st October, 1922.	Number admitted during the year ending 30th Sept., 1923.	Total number maintained during the year.	Number discharged during the year.	Number of deaths during the year.	Number remaining in residence on 30th Sept., 1923.
St. Joseph's Orphanage	Cobourg	19	24	43	17	.....	26
Nazareth Orphanage	Cornwall	49	49	98	44	1	53
St. Joseph's Orphanage	Fort William	88	86	174	101	.....	73
Boys' Home	Hamilton	48	28	76	23	.....	53
Girls' Home	"	40	29	69	26	.....	43
Home for Friendless and Infants' Home	"	56	152	208	145	.....	63
St. Mary's Orphan Asylum	"	157	91	248	105	.....	143
Salvation Army Rescue Home	"	25	68	93	58	3	32
Orphans' Home and Widows' Friend Socy.	Kingston	46	41	87	53	.....	34
St. Mary's of the Lake Orphanage	"	99	34	133	40	.....	93
Kitchener Orphanage	Kitchener	22	29	51	34	.....	17
Protestant Orphans' Home	London	37	69	106	44	.....	62
Roman Catholic Orphans' Home	"	167	104	271	119	4	148
Salvation Army Rescue Home and Children's Shelter	"	73	115	188	132	1	55
Ottawa Boys' Home	Ottawa	15	14	29	21	.....	8
Protestant Orphans' Home	"	59	43	102	54	.....	48
St. Joseph's Orphanage	"	254	134	388	143	.....	245
St. Patrick's Orphan Asylum	"	96	44	140	50	.....	90
Salvation Army Rescue & Children's Home	"	65	211	276	194	3	79
St. Vincent's Orphanage	Peterborough	31	23	54	26	.....	28
Loyal True Blue Orphanage	Picton	76	51	127	29	.....	98
St. Agatha Orphans' Home	St. Agatha	72	29	101	18	2	81
Protestant Orphans' Home	St. Catharines	20	17	37	11	.....	26
Boys' Home	Toronto	58	47	105	52	.....	53
Girls' Home	"	65	52	117	44	.....	73
Infants' Home and Infirmary	"	155	410	565	396	2	167
Protestant Orphans' Home	"	54	68	122	74	.....	48
St. Mary's Infants' Home	"	87	100	187	130	8	49
Sacred Heart Orphanage	"	192	51	243	133	.....	110
Working Boys' Home	"	37	65	102	67	.....	35
Totals for 1923	.....	2,262	2,278	4,540	2,383	24	2,133
Totals for 1922	.....	2,315	2,381	4,696	2,387	59	2,250

TABLE II.—Schedule C—Orphanages.

Name of Orphanage.	Location.	Aggregate stay of inmates.	Total expenditure on maintenance account for the year ending 30th September, 1923.	Average cost per inmate per day.
			$ c.	$ c.
St. Joseph's Orphanage	Cobourg	8,110	3,353 00	0 41
Nazareth Orphanage	Cornwall	18,461	6,025 54	0 33
St. Joseph's Orphanage	Fort William	31,685	15,705 67	0 50
Boys' Home	Hamilton	19,065	10,999 44	0 58
Girls' Home	"	15,034	14,025 70	0 93
Home for Friendless and Infants' Home	"	24,123	16,758 28	0 69
St. Mary's Orphan Asylum	"	53,509	22,731 06	0 42
Salvation Army Rescue Home	"	13,206	10,017 41	0 76
Orphans' Home and Widows' Friend Society	Kingston	15,568	13,247 69	0 85
St. Mary's of the Lake Orphanage	"	37,402	10,670 63	0 29
Kitchener Orphanage	Kitchener	6,896	4,142 19	0 60
Protestant Orphans' Home	London	18,665	15,097 90	0 81
Roman Catholic Orphans' Home	"	57,406	27,681 93	0 48
Salvation Army Rescue Home and Children's Shelter	"	26,643	.....*	.....
Ottawa Boys' Home	Ottawa	4,519	4,157 11	0 92
Protestant Orphans' Home	"	21,784	.....†	.....
St. Joseph's Orphanage	"	91,142	32,373 29	0 36
St. Patrick's Orphan Asylum	"	34,150	.....†	.....
Salvation Army Rescue and Children's Home	"	27,951	13,910 92	0 50
St. Vincent's Orphanage	Peterborough	11,128	4,845 80	0 44
Loyal True Blue Orphanage	Picton	28,612	12,788 81	0 45
St. Agatha Orphans' Home	St. Agatha	29,692	6,165 50	0 21
Protestant Orphans' Home	St. Catharines	8,442	8,743 57	1 04
Boys' Home	Toronto	19,109	17,642 56	0 92
Girls' Home	"	21,311	16,026 67	0 75
Infants' Home and Infirmary	"	60,125	57,873 60	0 96
Protestant Orphans' Home	"	19,578	33,466 79	1 70
St. Mary's Infants' Home	"	22,844	27,182 30	1 19
Sacred Heart Orphanage	"	55,572	39,411 17	0 71
Working Boys' Home	"	14,106	12,742 18	0 91
Totals for 1923		815,838	457,786 71	0 56
Totals for 1922		822,479	480,188 92	0 58

*Included in Bethesda Hospital.
†Included in Refuge Branch.

TABLE III.—Schedule C—Orphanages.

Name of Orphanage	Location.	Collective days' stay upon which computation of Orphanage rate is based.	Collective days' stay upon which computation of Refuge rate is based.	Amount received from all sources other than Government.	Computations at five (5) cents per day, being Orphanage rate.	Computations of ten (10) cents per day, being Refuge rate for adults.	Total Government grant for the year 1923.
St. Joseph's Orphanage	Cobourg	8,110	.....	$2,971 00	$405 50	.....	405 50
Nazareth Orphanage	Cornwall	18,461	.....	5,075 99	923 05	.....	923 05
St. Joseph's Orphanage	Fort William	31,685	.....	16,163 93	1,584 25	.....	1,584 25
Boys' Home	Hamilton	19,065	.....	9,664 24	953 25	.....	953 25
Girls' Home	"	15,034	.....	11,317 23	751 70	.....	751 70
Home for Friendless and Infants' Home	"	12,928	6,741	15,139 97	646 40	674 10	1,320 50
St. Mary's Orphan Asylum	"	53,509	.....	20,032 63	2,675 45	.....	2,675 45
Salvation Army Rescue Home	"	2,331	5,499	8,374 39	116 55	549 90	666 45
Orphans' Home and Widows' Friend Society	Kingston	15,568	.....	11,410 99	778 40	.....	778 40
St. Mary's of the Lake Orphanage	"	37,402	.....	8,935 05	1,870 10	.....	1,870 10
Kitchener Orphanage	Kitchener	6,896	.....	4,259 94	344 80	.....	344 80
Protestant Orphans' Home	London	18,665	.....	13,690 68	933 25	.....	933 25
Roman Catholic Orphans' Home	"	57,406	.....	25,554 48	2,870 30	.....	2,870 30
Salvation Army Rescue Home and Child. Shelter	"	13,723	5,789	..... *	686 15	578 90	1,265 05
Ottawa Boys' Home	Ottawa	4,519	.....	3,874 31	222 95	.....	225 95
Protestant Orphans' Home	"	21,784	.....	..... †	1,089 20	.....	1,089 20
St. Joseph's Orphanage	"	91,142	.....	28,079 90	4,557 10	.....	4,557 10
St. Patrick's Orphan Asylum	"	34,150	.....	33,957 51	1,707 50	.....	1,707 50
Salvation Army Rescue and Children's Home	"	14,902	8,230	9,802 53	745 10	823 00	1,568 10
St. Vincent's Orphanage	Peterborough	11,128	.....	3,724 00	556 40	.....	556 40
Loyal True Blue Orphanage	Picton	28,612	.....	12,074 17	1,430 60	.....	1,430 60
St. Agatha Orphans' Home	St. Agatha	29,692	.....	4,726 25	1,484 60	.....	1,484 60
Protestant Orphans' Home	St. Catharines	8,442	.....	7,999 16	422 10	.....	422 10
Boys' Home	Toronto	19,109	.....	15,978 64	955 45	.....	955 45
Girls' Home	"	21,311	.....	14,246 07	1,065 55	.....	1,065 55
Infants' Home and Infirmary	"	53,683	6,442	53,282 74	2,684 15	644 20	3,328 35
Protestant Orphans' Home	"	19,578	.....	31,565 48	978 90	.....	978 90
St. Mary's Infants' Home	"	15,926	6,918	27,510 89	796 30	691 80	1,488 10
Sacred Heart Orphanage	"	52,366	3,206	40,592 07	2,618 30	320 60	2,938 90
Working Boys' Home	"	14,106	.....	12,230 89	705 30	.....	705 30
Totals for 1923	.....	751,233	42,825	452,235 13	37,561 65	4,282 50	41,844 15
Totals for 1922	.....	760,168	47,629	425,699 40	38,008 40	4,762 90	42,771 30

*Included in Bethesda Hospital. †Included in Refuge Branch.

SEPARATE REPORTS

ST. JOSEPH'S ORPHANAGE, COBOURG.

The following summaries show the operations of the Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	19
Admitted	24
Total number of inmates....	43
Discharged	17
Died	....
In residence, 30th September, 1923	26
	43

Sex.	
Male	....
Female	43
	43
Places Admitted From.	
Town of Cobourg	....
County of Northumberland	....
Other counties and countries	42
Immigrants, etc	1
	43

The revenue of the home, including the Government grant of $150.00, was $3,353.00, and the expenditure, $3,353.00.

Government aid for 1923, $405.50.

NAZARETH ORPHANAGE, CORNWALL.

The following summaries show the operations of the Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	49
Admitted	49
Total number of inmates....	98
Discharged	44
Died	1
In residence, 30th September, 1923	53
	98

Sex.	
Male	51
Female	47
	98
Places Admitted From.	
Town of Cornwall	46
County of Stormont	13
Other counties and countries	39
Immigrants, etc	....
	98

The revenue of the home, including the Government grant of $949.55, was $6,025.54, and the expenditure, $6,025.54.

Government aid for 1923, $923.05.

ST. JOSEPH'S ORPHANAGE, FORT WILLIAM.

The following summaries show the operations of this Charity during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	88
Admitted	86
Total number of inmates....	174
Discharged	101
Died	....
In residence, 30th September, 1923	73
	174

Sex.	
Male	98
Female	76
	174
Places Admitted From.	
District of Thunder Bay	29
Fort William	9
Other counties in the Province	136
Immigrants, etc	....
	174

The revenue of the Home, including the Government grant of $1,744.35. was $17,908.28, and the expenditure, $15,705.67.

Government aid for 1923, $1,584.25.

BOYS' HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922	48
Admitted	28
Total number of inmates	76
Discharged	23
In residence, 30th September, 1923	53
	76

Places Admitted From.	
Hamilton City	76
County of Wentworth	....
	76

The receipts of the Home during the year, including the Government grant of $1,051.25, were $10,999.44, and the expenditures were $10,999.44.

Government aid for 1923, $953.25.

GIRLS' HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922	40
Admitted	29
Total number of inmates	69
Discharged	26
Number of deaths	....
In residence, 30th September, 1923	43
	69

Places Admitted From.	
City of Hamilton	69
County of Wentworth	....
	69

The revenue of the Home during the year, including the Government grant of $767.65, was $14,025.70, and the expenditure was $14,025.70.

Government aid for 1923, $751.70.

HOME FOR THE FRIENDLESS AND INFANTS' HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922	56
Admitted	152
Total number of inmates	208
Discharged	145
Died	....
In residence, 30th September, 1923	63
	208

Sex.	
Male	77
Female	131
	208
Places Admitted From.	
City of Hamilton	166
County of Wentworth	25
Other places and counties	10
Aliens	7
	208

The revenue of the Home, including Government grant of $1,378.55, was $16,758.28, and the expenditure, $16,758.28.

Government aid for 1923, $1,320.50.

ST. MARY'S ORPHAN ASYLUM, HAMILTON.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	157
Admitted	91
Total number of inmates....	248
Discharged	105
Died	....
In residence, 30th September, 1923	143
	248

Sex.	
Male	136
Female	112
	248
Places Admitted From.	
City of Hamilton	222
County of Wentworth	5
Other counties and countries....	21
	248

Including the Government grant of $2,489.10, the revenue of the Asylum during the year amounted to $22,731.06, and the expenditure to $22,731.06.

Government aid for 1923, $2,675.45.

THE SALVATION ARMY RESCUE HOME, HAMILTON.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	25
Admitted	68
Total number of inmates....	93
Discharged	58
Died	3
In residence, 30th September, 1923	32
	93

Sex.	
Male	29
Female	64
	93
Places Admitted From.	
City of Hamilton	65
County of Wentworth	5
Other counties and countries....	22
Aliens, etc	1
	93

The revenue of this Asylum for the year, including the Government grant of $719.90, amounted to $12,565.38, and the expenditure to $12,565.38.

Government aid for 1922, $666.45.

ORPHANS' HOME, KINGSTON.

The following summaries show the operations of this Institution during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	46
Admitted	41
Total number of inmates....	87
Discharged	53
Died	....
In residence, 30th September, 1923	34
	87

Sex.	
Male	45
Female	42
	87
Places Admitted From.	
City of Kingston	63
County of Frontenac	18
Other counties in Ontario	6
Immigrants, foreigners, etc.	....
	87

The revenue of this Home for the year, including the Government grant of $880.45, was $12,411.70, and the expenditure was $13,247.69.

Government aid for 1923, $778.40.

ST. MARY'S OF THE LAKE ORPHANAGE, KINGSTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	99
Admitted	34
Total number of inmates	133
Discharged	40
Died	....
In residence, 30th September, 1923	93
	133

Sex.	
Male	70
Female	63
	133
Places Admitted From.	
City of Kingston	37
County of Frontenac	1
Other counties	95
Immigrants, etc	....
	133

The income of the Asylum during the year, including the Government grant of $1,688.25, amounted to $10,703.32, and the expenditure to $10,703.32.

Government aid for 1923, $1,870.10.

KITCHENER ORPHANAGE, KITCHENER.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922...	22
Admitted	29
Total number of inmates	51
Discharged	34
Died	....
In residence, 30th September, 1923	17
	51

Sex.	
Male	29
Female	22
	51
Places Admitted From.	
Town of Kitchener	27
County of Waterloo	23
Counties in Ontario	1
Immigrants, etc	....
	51

The revenue of the Home, including the Government grant of $484.90, was $5,325.04, and the expenditures were $5,325.04.

Government aid for 1923, $344.80.

PROTESTANT ORPHANS' HOME, LONDON.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922	37
Admitted	69
Total number of inmates	106
Discharged	44
Died	....
In residence, 30th September, 1923	62
	106

Sex.	
Male	55
Female	51
	106
Places Admitted From.	
City of London	106
Other counties	....
	106

The revenue of the Home, including the Government grant of $889.75, was $17,048.18, and the expenditures were $17,048.18.

Government aid for 1923, $933.25.

ROMAN CATHOLIC ORPHANS' HOME, LONDON.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922...	167
Admitted.....	104
Total number of inmates.....	271
Discharged.....	119
Died.....	4
In residence, 30th September, 1923.....	148
	271

Sex.	
Male.....	161
Female.....	110
	271
Places Admitted From.	
City of London.....	68
County of Middlesex.....	1
Other parts of the Province.....	202
	271

The revenue of the Home during the year, including the Government grant of $2,515.00, amounted to $28,465.32, and the expenditures to $28,465.32.

Government aid for the year 1923, $2,870.30.

S. A. RESCUE HOME AND CHILDREN'S SHELTER, LONDON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In Residence, 1st October, 1922....	73
Admitted.....	115
Total number of inmates....	188
Discharged.....	132
Died.....	1
In residence, 30th September, 1923.....	55
	188

Sex.	
Male.....	65
Female.....	123
	188
Places Admitted From.	
City of London.....	71
Middlesex and other counties....	117
Immigrants, foreigners, etc.....	....
	188

The receipts and expenditures of this Home are included in the financial statements of the Bethesda Hospital.

Government aid for 1923, $1,265.05.

BOYS' HOME, OTTAWA.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	15
Admitted.....	14
Total number of inmates....	29
Discharged.....	21
Died.....	....
In residence, 30th September, 1923.....	8
	29

Sex.	
Male.....	29
Female.....	....
	29
Places Admitted From.	
City of Ottawa.....	24
County of Carleton.....	....
Other counties in Province.....	1
Immigrants, foreigners, etc.....	4
	29

The revenue of the Home during the year, including Government grant of $540.00, amounted to $4,157.11, and the expenditures to $4,157.11.

Government aid for 1923, $225.95.

ORPHANS' HOME, OTTAWA.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	59
Admitted	43
Total number of inmates....	102
Discharged	54
Died	....
In residence, 30th September, 1923	48
	102

Sex.	
Male	51
Female	51
	102
Places Admitted From.	
City of Ottawa	90
County of Carleton	....
Other counties	10
Immigrants, etc	2
	102

The receipts and expenditures are included in the financial statement of the Refuge Branch of the Orphans' Home, Ottawa. See Schedule "B," Refuge Report.

Government aid for $1923, $1,089.20.

ST. JOSEPH'S ORPHAN ASYLUM, OTTAWA.

The following summaries show the operations of this Charity during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	254
Admitted	134
Total number of inmates....	388
Discharged	143
Died	....
In residence, 30th September, 1923	245
	388

Sex.	
Male	183
Female	205
	388
Places Admitted From.	
City of Ottawa	236
County of Carleton	4
Other counties in Ontario	148
	388

The receipts of the Institution, including the Government grant of $4,351.40, were $32,538.63, and the expenditures, $32,538.63.

Government aid for 1923, $4,557.10.

ST. PATRICK'S ORPHAN ASYLUM, OTTAWA.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.	
In residence, 1st October, 1922	96
Admitted	44
Total number of inmates....	140
Discharged	50
Died	....
In residence, 30th September, 1923	90
	140

Sex.	
Male	81
Female	59
	140
Places Admitted From.	
City of Ottawa	97
County of Carleton	....
Other parts of Province	38
Other counties	5
	140

The receipts and expenditures of this Institution are included in the financial statement of the Refuge Department; *vide* Schedule "B," Refuge Report.

Government aid for 1923, $1,707.50.

S. A. RESCUE HOME AND CHILDREN'S SHELTER, OTTAWA.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	65
Admitted during the year.....	211
Total number of inmates....	276
Discharged.....	194
Died.....	3
In residence, 30th September, 1923.....	79
	276

Sex.	
Male.....	71
Female.....	205
	276
Places Admitted From.	
City of Ottawa.....	216
County of Carleton.....	18
Other counties.....	37
Immigrants, foreigners, etc.....	5
	276

The revenue of the Home, including Government grant of $1,296.45, was $12,195.59, and the expenditures were $13,910.92.

Government aid for 1923, $1,568.10.

ST. VINCENT'S ORPHANAGE, PETERBOROUGH.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	31
Admitted.....	23
Total number of inmates....	54
Discharged.....	26
Number of deaths.....	.....
In residence, 30th September, 1923.....	28
	54

Sex.	
Male.....	47
Female.....	7
	54
Places Admitted From.	
City of Peterborough.....	32
County of Peterborough.....	22
Other counties in the Province...	....
	54

The revenue of the Home, including the Government grant of $796.90, during the year was $4,520.90, and the expenditures were $4,845.80.

Government aid for 1923, $556.40.

LOYAL TRUE BLUE ORPHANAGE, RICHMOND HILL

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	76
Admitted.....	51
Total.....	127
Discharged.....	29
Died.....	....
In residence, 30th September, 1923.....	98
	127

Sex.	
Male.....	68
Female.....	59
	127
Places Admitted From.	
City of Toronto.....	72
County of Prince Edward.....	2
Other counties of Ontario.....	53
Aliens.....	....
	127

The revenue of the Home, including the Government grant of $1,334.75, was $19,208.44, and the expenditures were $19,208.44.

Government aid for 1923, $1,430.60.

ST. AGATHA ORPHAN ASYLUM, ST. AGATHA.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	72
Admitted	29
Total number of inmates....	101
Discharged	18
Died	2
In residence, 30th September, 1923	81
	101

Sex.	
Male	47
Female	54
	101
Places Admitted From.	
County of Waterloo	101
Other counties	....
Aliens	....
	101

The revenue of the Asylum was $7,078.99, including the Government grant of $1,327.00, and the expenditure, $6,165.50.

Government aid for 1923, $1,484.60.

PROTESTANT HOME (ORPHANAGE BRANCH), ST. CATHARINES.

The following summaries show the operations of this Charity during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	20
Admitted	17
Total number of inmates....	37
Discharged	11
Died	....
In residence, 30th September, 1923	26
	37

Sex.	
Male	21
Female	16
	37
Places Admitted From.	
City of St. Catharines	23
County of Lincoln	10
Other counties	4
Aliens	....
	37

The revenue of the Home during the year, including the Government grant of $363.90' amounted to $11,048.58, and the expenditure, $11,048.58.

Government aid for 1923, $422.10.

BOYS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	58
Admitted	47
Total number of inmates...	105
Discharged	52
Died	....
In residence, 30th September, 1923	53
	105

Places Admitted From.	
City of Toronto	105
County of York	....
Counties of Ontario	....
Immigrants, foreigners, etc.	....
	105

The receipts of the Home during the year, including the Government grant of $1,218.25, amounted to $17,196.89, and the expenditures were $17,642.56.

Government aid for 1923, $955.45.

GIRLS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	65
Admitted	52
Total number of inmates....	117
Discharged	44
Died	....
In residence, 30th September, 1923	73
	117

Places Admitted From.	
City of Toronto	104
County of York	6
Other parts of Ontario	7
	117

The receipts of the Institution during the year, including the Government grant of $1,124.50, amounted to $16,188.06, and the expenditure, $16,188.06.

Government aid for 1923, $1,065.55.

THE INFANTS' HOME AND INFIRMARY, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	155
Admitted	410
Total number of inmates....	565
Discharged	396
Died	2
In residence, 30th September, 1923	167
	565

Sex.	
Male	283
Female	282
	565

Places Admitted From.	
City of Toronto	439
County of York	35
Other counties in Ontario	72
Immigrants, foreigners, etc.	19
	565

The receipts of the Home during the year, including the Government grant of $3,596.05, were $57,145.31, and the expenditures were $57,873.60.

Government aid for the year 1923, $3,328.35.

ST. MARY'S INFANTS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	87
Admitted	100
Total number of inmates....	187
Discharged	130
Died	8
In residence, 30th September, 1922	49
	187

Sex.	
Male	72
Female	115
	187

Places Admitted From.	
County of York	140
City of Toronto	....
Other counties in Ontario	42
Immigrants, foreigners, etc.	5
	187

The receipts of the Home during the year, including the Government grant of $1,924.05, were $29,602.36, and the expenditures were $29,602.36.

Government aid for 1923, $1,488.10.

PROTESTANT ORPHANS' HOME, TORONTO.

The following summaries show the operations of this Institution during the year:

Movements of Inmates.	
In residence, 1st October, 1922..	54
Admitted	68
Total number of inmates....	122
Discharged	74
Died	....
In residence, 30th September, 1923	48
	122

Sex.	
Male	57
Female	65
	122
Places Admitted From.	
City of Toronto	99
Immigrants, foreigners, etc.	18
Other parts of Ontario	5
	122

The receipts of the Institution during the year, including the Government grant of $1,890.05, were $32,776.78, and the expenditures were $28,737.39.

Government aid for the year 1923, $978.90.

ROMAN CATHOLIC ORPHAN ASYLUM, TORONTO.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.	
In residence, 1st October, 1922...	192
Admitted	51
Total number of inmates....	243
Discharged	133
Died	....
In residence, 30th September, 1923	110
	243

Sex.	
Male	141
Female	102
	243
Places Admitted From.	
City of Toronto	229
County of York	4
Other parts of Ontario	10
Immigrants, foreigners, etc.	....
	243

The receipts of the Institution during the year, including the Government grant of $4,121.30, were $62,020.83, and the expenditures were $62,020.83.

Government aid for the year 1923, $2,938.90.

THE WORKING BOYS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.	
In residence, 1st October, 1922...	37
Admitted	65
Total number of inmates....	102
Discharged	67
Died	....
In residence, 30th September, 1923	35
	102

Sex.	
Male	102
	102
Places Admitted From.	
City of Toronto	82
County of York	3
Counties of Ontario	12
Aliens	5
	102

The receipts of the Home during the year, including the Government grant of $663.95, amounted to $13,158.99, and the expenditures were $13,158.99.

Government aid for the year 1923, $705.30.

COUNTY HOUSES OF REFUGE

TABLE I.

County Houses of Refuges. Summary of the operations of each Refuge during the year:

County Houses of Refuge.	Location.	Number of persons in the Refuge on 1st Oct., 1922.	Number admitted during the year.	Total number under lodgment during year ending 30th September, 1923.	Total number discharged during the year.	Number of deaths during the year.	Number of persons remaining in the Refuges on 30th September, 1923.
County of Brant	Brantford	52	29	81	12	6	63
County of Bruce	Walkerton	47	11	58	2	11	45
County of Elgin	St. Thomas	36	7	43	1	16	26
County of Essex	Leamington	40	8	48	5	2	41
County of Grey	Markdale	53	23	76	9	11	56
County of Haldimand	Dunnville	35	20	55	2	8	45
County of Hastings	Belleville	79	25	104	9	10	85
County of Huron	Clinton	77	15	92	5	7	80
County of Kent	Chatham	42	17	59	10	4	45
County of Lambton	Sarnia	38	13	51	4	7	40
County of Lanark	Perth	67	24	91	14	4	73
Counties of Leeds and Grenville	Athens	38	11	49	9	6	34
County of Lincoln	St. Catharines	47	17	64	15	6	43
County of Middlesex	Strathroy	54	17	71	2	5	64
County of Norfolk	Simcoe	48	21	69	13	7	49
Counties of North'b'land and Durham	Cobourg	66	22	88	9	16	63
County of Ontario	Whitby	71	21	92	17	12	63
County of Oxford	Woodstock	63	14	77	14	10	53
Counties of Peel and Halton	Brampton	40	14	54	6	7	41
County of Perth	Stratford	64	16	80	13	6	61
County of Peterborough	Lakefield	33	1	34	3	4	27
Counties of Prescott and Russell	L'Orignal	63	16	79	3	14	62
County of Prince Edward	Picton	30	19	49	5	8	36
County of Simcoe	Beeton	68	13	81	5	8	68
Counties of Stormont, Dundas & Gleng'ry	Cornwall	50	18	68	7	10	51
County of Victoria	Lindsay	52	11	63	5	7	51
County of Waterloo	Kitchener	104	22	126	17	17	92
County of Welland	Welland	62	18	80	9	6	65
County of Wellington	Fergus	58	26	84	12	14	58
County of Wentworth	Dundas	37	14	51	3	10	38
County of York	Newmarket	65	16	81	8	10	63
Totals for 1923		1,679	519	2,198	248	269	1,681

TABLE II.

County Houses of Refuge. Shows the aggregate stay of inmates upon which the amount of aid to be granted by the Government to each Refuge is based. The average stay per inmate is also given:

County Houses of Refuge.	Location.	Number of inmates during the year.	Total days' stay during the year.	Average stay per inmate in days.
County of Brant	Brantford	81	21,704	268
County of Bruce	Walkerton	58	16,922	292
County of Elgin	St. Thomas	43	11,006	256
County of Essex	Leamington	48	14,794	308
County of Grey	Markdale	76	20,255	266
County of Haldimand	Dunnville	55	14,616	266
County of Hastings	Belleville	104	30,683	295
County of Huron	Clinton	92	28,571	311
County of Kent	Chatham	59	16,874	286
County of Lambton	Sarnia	51	14,678	288
County of Lanark	Perth	91	25,281	278
Counties of Leeds and Grenville	Athens	49	13,832	282
County of Lincoln	St. Catharines	64	17,381	272
County of Middlesex	Strathroy	71	21,198	299
County of Norfolk	Simcoe	69	18,804	273
Counties of Northumberland and Durham	Cobourg	88	23,998	273
County of Ontario	Whitby	92	22,965	250
County of Oxford	Woodstock	77	21,461	279
Counties of Peel and Halton	Brampton	54	14,185	263
County of Perth	Stratford	80	22,534	282
County of Peterborough	Lakefield	34	11,184	329
Counties of Prescott and Russell	L'Orignal	79	22,949	290
County of Prince Edward	Picton	49	11,748	240
County of Simcoe	Beeton	81	23,918	295
Counties of Stormont, Dundas and Glengarry	Cornwall	68	19,133	252
County of Victoria	Lindsay	63	18,572	295
County of Waterloo	Kitchener	126	34,479	274
County of Welland	Welland	80	23,271	291
County of Wellington	Fergus	84	22,036	262
County of Wentworth	Dundas	51	13,665	268
County of York	Newmarket	81	24,082	297
Totals for 1923		2,198	616,779	281

TABLE III.

County Houses of Refuge. Showing the cost of maintaining the Refuges.

County Houses of Refuge	Location	Aggregate stay of inmates.	Cost of dietaries.	Expenditure for fuel, salaries and wages, and all general expenses.	Total expenditure exclusive of extraordinary expenses.	Average cost per inmate per day.
			$ c.	$ c.	$ c.	$ c.
County of Brant	Brantford	21,704	5,827 67	15,570 14	21,397 81	1 00
County of Bruce	Walkerton	16,922	2,989 32	5,739 11	8,728 43	0 52
County of Elgin	St. Thomas	11,006	1,467 38	8,245 31	9,712 69	0 88
County of Essex	Leamington	14,794	2,606 62	1,161 62	3,768 24	0 25
County of Grey	Markdale	20,255	2,669 94	9,255 23	11,925 17	0 59
County of Haldimand	Dunnville	14,616	2,905 92	5,840 23	8,746 15	0 60
County of Hastings	Belleville	30,683	3,205 72	8,299 51	11,505 23	0 37
County of Huron	Clinton	28,571	3,991 16	8,076 78	12,067 94	0 42
County of Kent	Chatham	16,874	1,956 69	8,290 24	10,246 93	0 61
County of Lambton	Sarnia	14,678	3,071 91	8,641 37	11,713 28	0 80
County of Lanark	Perth	25,281	3,045 05	9,991 77	13,036 82	0 52
Counties of Leeds and Grenville	Athens	13,832	3,677 20	6,670 00	10,347 20	0 75
County of Lincoln	St. Catharines	17,381	4,611 83	10,199 00	14,810 83	0 85
County of Middlesex	Strathroy	21,198	3,186 20	10,857 38	14,043 58	0 66
County of Norfolk	Simcoe	18,804	3,190 79	7,934 67	11,125 46	0 59
Counties of Northumberland and Durham	Cobourg	23,998	4,102 15	13,078 02	17,180 17	0 72
County of Ontario	Whitby	22,965	4,864 01	11,693 75	16,557 76	0 73
County of Oxford	Woodstock	21,461	3,502 73	6,080 07	9,582 80	0 45
Counties of Peel and Halton	Brampton	14,185	1,745 93	9,360 01	11,105 94	0 78
County of Perth	Stratford	22,534	2,675 65	5,704 07	8,379 72	0 37
County of Peterborough	Lakefield	11,184	1,958 82	7,393 77	9,352 59	0 84
Counties of Prescott and Russell	L'Orignal	22,949	4,630 53	19,701 88	24,332 41	1 06
County of Prince Edward	Picton	11,748	1,738 30	6,044 97	7,783 27	0 66
County of Simcoe	Beeton	23,918	5,986 83	15,209 62	21,196 45	0 88
Counties of Stormont, Dundas and Glengarry	Cornwall	19,133	4,244 67	11,560 40	15,805 07	0 83
County of Victoria	Lindsay	18,572	5,039 36	12,063 79	17,103 15	0 92
County of Waterloo	Kitchener	34,479	6,445 19	31,692 45	38,137 64	1 11
County of Welland	Welland	23,271	8,231 94	10,043 06	18,275 00	0 79
County of Wellington	Fergus	22,036	2,291 60	9,362 65	11,654 25	0 53
County of Wentworth	Dundas	13,665	2,848 83	10,631 97	13,480 80	0 99
County of York	Newmarket	24,082	4,155 00	17,050 00	21,205 00	0 88
Totals for 1923		616,779	112,864 94	321,442 84	434,307 78	0 70

TABLE IV.

County Houses of Refuge. Showing the basis upon which statutory aid is granted.

County Houses of Refuge.	Location.	Collective days' stay upon which computation of Refuge rate of 10 cents is based.	Amount received from all sources other than Government.	Computation at ten (10) cents per day.	Total Government grant to each House of Refuge for the year 1923.
			$ c.	$ c.	$ c.
County of Brant	Brantford	21,704	21,226 21	2,170 40	2,170 40
County of Bruce	Walkerton	16,922	8,295 85	1,692 20	1,692 20
County of Elgin	St. Thomas	11,006	9,604 39	1,100 60	1,100 60
County of Essex	Leamington	14,794	3,481 81	1,479 40	1,479 40
County of Grey	Markdale	20,255	11,765 91	2,025 50	2,025 50
County of Haldimand	Dunnville	14,616	9,529 60	1,461 60	1,461 60
County of Hastings	Belleville	30,683	11,246 83	3,068 30	3,068 30
County of Huron	Clinton	28,571	15,202 54	2,857 10	2,857 10
County of Kent	Chatham	16,874	10,107 63	1,687 40	1,687 40
County of Lambton	Sarnia	14,678	11,593 38	1,467 80	1,467 80
County of Lanark	Perth	25,281	10,701 45	2,528 10	2,528 10
Counties of Leeds and Grenville	Athens	13,832	8,928 84	1,383 20	1,383 20
County of Lincoln	St. Catharines	17,381	14,655 73	1,738 10	1,738 10
County of Middlesex	Strathroy	21,198	13,864 98	2,119 80	2,119 80
County of Norfolk	Simcoe	18,804	10,979 78	1,880 40	1,880 40
Counties of Northumberland and Durham	Cobourg	23,998	16,990 17	2,399 80	2,399 80
County of Ontario	Whitby	22,965	14,545 72	2,296 50	2,296 50
County of Oxford	Woodstock	21,461	10,014 82	2,146 10	2,146 10
Counties of Peel and Halton	Brampton	14,185	10,168 65	1,418 50	1,418 50
County of Perth	Stratford	22,534	8,166 82	2,253 40	2,253 40
County of Peterborough	Lakefield	11,184	9,789 43	1,118 40	1,118 40
Counties of Prescott and Russell	L'Orignal	22,949	24,121 11	2,294 90	2,294 90
County of Prince Edward	Picton	11,748	7,684 34	1,174 80	1,174 80
County of Simcoe	Beeton	23,918	2,581 55	2,391 80	2,391 80
County of Stormont, Dundas and Glengarry	Cornwall	19,133	15,646 67	1,913 30	1,913 30
County of Victoria	Lindsay	18,572	17,422 51	1,857 20	1,857 20
County of Waterloo	Kitchener	34,479	37,791 64	3,447 90	3,447 90
County of Welland	Welland	23,271	3,732 24	2,327 10	2,327 10
County of Wellington	Fergus	22,036	13,008 58	2,203 60	2,203 60
County of Wentworth	Dundas	13,665	13,359 80	1,366 50	1,366 50
County of York	Newmarket	24,082	21,093 00	2,408 20	2,408 20
Totals for 1923		616,779	397,301 98	61,677 90	61,677 90

FIFTY-SIXTH ANNUAL REPORT

UPON THE

Gaols and District Lock-ups of Ontario

In presenting the Fifty-sixth Annual Report of the Gaols and Lock-ups of Ontario, I beg to submit the following statistics for the year ending September 30th, 1923.

---

(1) Number of Gaols in Ontario 46
Number of Provincial Lock-ups 4

(2) Total expenditure for Gaol maintenance in Ontario:

In 1922	$290,818 68
In 1923	300,454 57
Increase	$9,635 89

(3) The cash revenue from Gaol labour during 1923 was $4,450.75, and was earned at Kingston and Ottawa.

Average cost per day for each prisoner in the County Gaols of Ontario was:

In 1922	49.64 cents.
In 1923	58.62 cents.

(4) Number of persons committed to Gaols and Lock-ups during the past two years was:

In 1922	14,800
In 1923	13,995
Decrease during the past year	805
Commitments for murder in 1922	41
Commitments for murder in 1923	27
Decrease	14
Commitments for manslaughter in 1922	32
Commitments for manslaughter in 1923	28
Decrease	4

Commitments for crime against the person:

In 1922	679
In 1923	599
Decrease	80

Commitments for crime against property:

In 1922	4,079
In 1923	3,336
Decrease	743

Commitments for crime against public morals and decency:

In 1922	836
In 1923	782
Decrease	54

Commitments for crime against public order and peace:

In 1922	6,736
In 1923	6,718
Decrease	18

Number of insane committed to Gaols:

In 1922	325
In 1923	324
Decrease	1

Prisoners sentenced to the Penitentiary during the past year show a decrease of 143 as compared with the previous year, and the number transferred to the Reformatories was 657 less than in 1922.

Number of prisoners sentenced in 1922	9,312
Number of prisoners sentenced in 1923	8,036
Decrease	1,276

The percentage of sentences to commitments was:

In 1922	64.3
In 1923	57.4

The number of prisoners sentenced to terms over one year was 271 less than during the previous year.

The number confined in penal institutions of Ontario was 193 less on September 30th, 1923, than on the same date last year.

Of those committed during the year, 5,757 were married and 8,238 were single.

Habits of life of those committed to Gaols:

In 1922, number of commitments, 14,800; temperate, 7,425; percentage, 50.1.

In 1923, number of commitments, 13,995; temperate, 6,540; percentage, 46.7.

16.88 per cent. of the prisoners committed to the gaols during the past year could not read or write.

Number of days' stay of prisoners.

In 1922	218,177
In 1923	189,220
Showing a decrease of days	28,957

Escapes and captures:

Seven prisoners escaped during the year, of whom six were recaptured.

Deaths in Gaols:

In 1922	6
In 1923	15

COMMON GAOLS.

The following table shows the number of prisoners committed to the Common Gaols in the Province in each year, from 1st October, 1913, to 30th September, 1923.

Date of Commitment.	Men over 16 years of age.	Boys under 16 years of age.	Women over 16 years of age.	Girls under 16 years of age.	Totals.
Commitments for the year ending 30th September, 1913	17,442	85	1,713	10	19,250
" " 1914	21,024	84	1,665	4	22,777
" " 1915	18,566	90	1,669	12	20,337
" " 1916	14,506	80	1,502	12	16,100
" " 1917	11,417	142	878	8	12,445
" " 1918	12,182	136	914	10	13,242
" " 1919	12,034	183	872	7	13,096
" " 1920	13,759	106	882	9	14,756
" " 1921	16,526	93	1,168	13	16,800
" " 1922	13,360	126	1,300	14	14,800
" " 1923	12,766	80	1,135	14	13,995

The disposition made of the persons committed to the gaols of the Province is set forth in the table printed below:

	1923
Acquitted on being brought to trial, and discharged	4,014
Discharged without trial by order of judges, magistrates and courts, including remand cases	623
Detained for want of sureties to keep the peace	3
Detained as witnesses	59
Detained as fraudulent debtors	34
Detained as lunatics, idiots and persons unsafe to be at large	332
Died before trial	5
Detained by civil processes other than above	76
Waiting trial and otherwise detained on 30th September, 1923	171
Found guilty and sentenced	8,036
Discharged under suspended sentence	642
Total number of commitments	13,995

The places of confinement to which the convicted persons were sentenced are set forth in the following statement, and similar information is given as regards the sentenced prisoners of the previous year:

	1922	1923
Sentenced to Kingston Penitentiary	385	242
" to the Industrial School	523	288
" direct to the Ontario Reformatory	1,592	1,497
" to the Common Gaols and subsequently transferred to the Ontario Reformatory	3,068	2,411
" direct to the Reformatory for Females	136	94
" to the Common Gaols and subsequently transferred to the Reformatory for Females	24	70
" to the Common Gaols and there detained until the expiration of sentence	3,580	3,424
Died while undergoing sentence	4	10
Totals	9,312	8,036

The summaries given below show the nature of the offence committed by the convicted persons:

1. *Crimes against the Person.*

	Total Commitments for the year.	Number found guilty and sentenced.
Assault, common	292	150
Assault, felonious	126	58
Cutting and wounding, stabbing and shooting with intent	49	29
Rape and assault with intent	53	22
Murder	27	3
Manslaughter	28	20
Attempted suicide	24	8
Totals	599	290

2. *Crimes against Property.*

	Total Commitments for the year.	Number found guilty and sentenced.
Arson and incendiarism	35	8
Burglary	199	83
Counterfeiting and passing counterfeit money	5	....
Destroying and injuring property	39	23
Embezzlement	....	....
Forgery	85	50
Fraud and obtaining money and goods under false pretences	364	186
Horse, cattle and sheep stealing	11	6
Housebreaking and robbery	371	262
Larceny	1,536	797
Receiving stolen goods	91	37
Trespass	364	245
Miscellaneous	236	51
Totals	3,336	1,748

3. *Crimes against Public Morals and Decency.*

	Total Commitments for the year.	Number found guilty and sentenced.
Bigamy	50	36
Inmates and frequenters of houses of ill-fame	339	149
Keeping houses of ill-fame	118	86
Perjury	31	13
Seduction	56	19
Indecent assault and exposure	120	75
Miscellaneous	68	23
Totals	782	401

4. *Offences against Public Order and Peace.*

	Total Commitments for the year.	Number found guilty and sentenced.
Abusive and obscene language	11	2
Breaches of peace, breaches of by-laws, escapes from and obstructing constables	166	105
Carrying unlawful weapons	69	43
Deserting employment, etc.	2	1
Drunk and disorderly	3,482	2,389
Deserting the militia	4	4
Selling liquor without a license and selling or giving it to Indians	1,200	821
Threatening and seditious language	17	7
Vagrancy	1,749	808
Miscellaneous	18	8
Total	6,718	4,188
Lunatics and contempt of court, etc.	57	32
Other offences, not classified in foregoing	2,503	1,377
Grand total	13,995	8,036

The following tables show the period of sentence passed on the convicted prisoners and the sex, social conditions, habits, etc., of the total number of prisoners committed:

Periods of Sentence.

	1922	1923
For periods under thirty days	2,732	2,745
the last term	1,940	1,505
For sixty days, or two months	565	468
Over two months to three months	1,452	1,156
Over three months to four months	270	233
Over four months to five months	175	64
Over five months to six months	693	589
Over six months to nine months	171	165
Over nine months up to one year, inclusive	243	197
Over one year and up to two years	391	220
Over two years and up to three years in the Penitentiary	180	153
Over three years in the Penitentiary	165	92
For periods of any length in the Industrial Schools	309	430
Sentenced to death and executed	3	2
Sentenced to death and commuted to imprisonment	1	2
Sentenced to imprisonment with corporal punishment	22	15
	9,312	8,036

Sex.

	1922	1923
Male	13,486	12,846
Female	1,314	1,149
	14,800	13,995

Social Conditions.

Married	6,015	5,757
Unmarried	8,785	8,238
	14,800	13,995

Habits.

Temperate	7,425	6,540
Intemperate	7,375	7,455
	14,800	13,995

Educational Status.

Could read and write	12,573	11,839
Could neither read nor write	2,227	2,156
	14,800	13,995

Nationality.

Canadian	8,541
English	939
Irish	506
Scotch	456
United States	932
Other countries	2,621
	13,995

Religious Denominations.

Roman Catholic	6,169
English Church	2,370
Presbyterian	1,473
Methodist	1,703
Other denominations	2,280
	13,995

The number of prisoners confined in the various custodial institutions of the Province at the close of the past official year, and the year preceding, is exhibited in the following summary:

	1922	1923
In the Common Gaols	481	496
In the Reformatory for Females and Refuge for Girls, Toronto	161	143
In the Dominion Penitentiary, Kingston	765	691
In the Industrial Farm, Burwash	299	268
In the Industrial Farm, Fort William	27	67
In the Toronto Municipal Farm, Langstaff	266	185
In the Ontario Reformatory Clay Plant, Mimico	80	97
In the Ontario Reformatory, Guelph	486	425
	2,565	2,372

A summary is given below showing the days' stay respectively of those prisoners whose maintenance was chargeable to the Province and of those who were a charge on the Municipalities:

		Days' Stay
5,227	Criminal prisoners remained in gaol	86,367
8,768	Municipal prisoners remained in gaol	102,853
13,995	Prisoners in all remained in gaol	189,220

TABLE No. 1.

Showing total number of prisoners, male and female, sentenced under each offence, during the year ending 30th September, 1923.

Offences.	Male.	Female.	Total.
Abortion	5	1	6
Abusive and obscene language	2	.....	2
Arson	7	.....	7
Assault	148	2	150
Assault, felonious	56	2	58
Attempted suicide	7	1	8
Abduction	2	.....	2
Bigamy	28	8	36
Breaches of the Peace	10	.....	10
Breaches of by-laws	28	1	29
Burglary	83	.....	83
Contempt of court	31	1	32
Carrying unlawful weapons	43	.....	43
Counterfeiting and passing counterfeit money	.....	.....	.....
Cruelty to animals	5	.....	5
Cutting, wounding and attempting same	19	.....	19
Destroying and injuring property	20	3	23
Drunk and disorderly	2,319	70	2,389
Deserting militia	4	.....	4
Deserting employment	1	.....	1
Escaping from or obstructing constables	26	.....	26
Escaping from prison	36	4	40
Forgery	45	5	50
Fraud or obtaining money or goods under false pretences	180	6	186
Gambling	51	.....	51
Giving liquor to Indians	6	.....	6
Horse, cattle and sheep stealing	5	1	6
Housebreaking and robbery	258	4	262
Incendiarism	1	.....	1
Indecent assault and exposure	75	.....	75
Inmates and frequenters of houses of ill-fame	93	56	149
Keepers of houses of ill-fame	43	43	86
Larceny	755	42	797
Manslaughter	19	1	20
Misdemeanour	1	.....	1
Murder	3	.....	3
Perjury	12	1	13
Prostitution	.....	15	15
Rape and assault with intent	22	.....	22
Refusing bail	.....	.....	.....
Receiving stolen property	32	5	37
Seduction	19	.....	19
Selling liquor without license and breaches O.T.A.	753	62	815
Shooting with intent	9	.....	9
Stabbing	1	.....	1
Threatening and seditious language	7	.....	7
Trespass	245	.....	245
Unlawful shooting	2	.....	2
Vagrancy	661	147	808
Other offences not enumerated	1,286	91	1,377
Totals	7,464	572	8,036

TABLE No. 2.

Showing the social status and habits of the prisoners committed during the year ending 30th September, 1923.

Name of gaol.	Married.	Unmarried.	Temperate	Intemperate.	Total committed to gaol.	Neither read nor write.
Barrie	49	53	77	25	102	23
Belleville	95	155	232	18	250	41
Brantford	51	70	52	69	121	22
Brampton	29	34	30	33	63	4
Brockville	35	62	59	38	97	5
Bracebridge	10	11	18	3	21	.....
Cayuga	8	31	30	9	39	3
Cornwall	42	65	33	74	107	37
Cobourg	31	39	47	23	70	13
Chatham	96	119	173	42	215	32
Fort Frances	42	82	48	76	124	15
Goderich	15	36	31	20	51	5
Guelph	31	43	73	1	74	3
Gore Bay	7	4	9	2	11	4
Hamilton	331	418	239	510	749	100
Kingston	43	50	49	44	93	7
Kitchener	85	81	103	63	166	8
Kenora	29	27	56	.....	56	11
London	177	365	285	257	542	34
Lindsay	17	18	26	9	35	3
L'Orignal	9	12	18	3	19	4
Milton	25	96	91	30	121	12
Napanee	9	41	40	10	50	5
North Bay	123	244	263	104	367	71
Ottawa	232	404	298	338	636	79
Owen Sound	52	72	87	37	124	9
Orangeville	11	18	27	2	29	2
Perth	16	36	20	32	52	7
Picton	27	11	15	23	38	.....
Pembroke	21	37	42	16	58	10
Peterborough	64	49	74	39	113	10
Port Arthur	110	343	86	367	453	76
Parry Sound	54	80	87	47	134	28
Simcoe	24	38	48	14	62	7
St. Catharines	93	130	107	116	223	48
Sarnia	75	95	46	124	170	17
Stratford	49	60	79	30	109	4
Sandwich	233	362	409	186	595	47
St. Thomas	53	69	115	7	122	20
Sault Ste. Marie	109	172	81	200	281	58
Sudbury	319	643	194	768	962	246
Toronto	2,556	3,019	2,310	3,265	5,575	902
Walkerton	21	17	23	15	38	4
Woodstock	23	69	67	25	92	2
Welland	153	177	148	182	330	66
Whitby	47	83	74	56	130	52
Lock-ups:						
Atikokan	2	1	3	.....	3	.....
Byng Inlet	1	5	.....	6	6	.....
Cobalt	23	90	18	95	113	.....
Mine Centre	.....	2	.....	2	2	.....
Totals	5,757	8,238	6,540	7,455	13,995	2,156

TABLE

Showing the number of persons committed, the number over and under sixteen years of age, unsound mind, number acquitted on trial, number discharged without trial, number

Name of gaol.	Total number committed during the year.			Number under 16 years of age.			Number over 16 years of age.			For the first time.	For the second time.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		
Barrie	97	5	102	3	.....	3	94	5	99	74	18
Belleville	234	16	250	7	.....	7	227	16	243	174	33
Brantford	113	8	121	.....	.....	.....	113	8	121	73	13
Brampton	58	5	63	2	1	3	56	4	60	41	15
Brockville	93	4	97	6	.....	6	87	4	91	69	16
Bracebridge	18	3	21	1	.....	1	17	3	20	18	2
Cayuga	36	3	39	1	.....	1	35	3	38	34	2
Cornwall	105	2	107	1	.....	1	104	2	106	75	13
Cobourg	63	7	70	.....	.....	.....	63	7	70	53	6
Chatham	190	25	215	6	1	7	184	24	208	167	29
Fort Frances	115	9	124	1	.....	1	114	9	123	114	4
Goderich	48	3	51	.....	.....	.....	48	3	51	46	5
Guelph	72	2	74	.....	1	1	72	1	73	44	16
Gore Bay	9	2	11	.....	.....	.....	9	2	11	9	1
Hamilton	664	85	749	3	.....	3	661	85	746	473	87
Kingston	82	11	93	.....	.....	.....	82	11	93	90	1
Kitchener	151	15	166	3	.....	3	148	15	163	108	35
Kenora	54	2	56	.....	.....	.....	54	2	56	48	8
London	482	60	542	4	3	7	478	57	535	335	103
Lindsay	33	2	35	.....	.....	.....	33	2	35	28	5
L'Orignal	20	1	21	2	.....	2	18	1	19	21	.....
Milton	118	3	121	.....	.....	.....	118	3	121	107	3
Napanee	48	2	50	3	.....	3	45	2	47	48	1
North Bay	342	25	367	.....	.....	.....	342	25	367	311	44
Ottawa	547	89	636	1	.....	1	546	89	635	609	21
Owen Sound	122	2	124	1	1	2	121	1	122	61	19
Orangeville	25	4	29	1	.....	1	24	4	28	27	2
Perth	50	2	52	.....	.....	.....	50	2	52	40	6
Picton	38	.....	38	.....	.....	.....	38	.....	38	32	3
Pembroke	54	4	58	1	.....	1	53	4	57	53	5
Peterborough	106	7	113	.....	.....	.....	106	7	113	62	33
Port Arthur	424	29	453	1	.....	1	423	29	452	443	10
Parry Sound	130	4	134	1	1	2	129	3	132	116	15
Simcoe	59	3	62	3	.....	3	56	3	59	50	8
St. Catharines	207	16	223	1	.....	1	206	16	222	155	29
Sarnia	161	9	170	9	1	10	152	8	160	137	21
Stratford	101	8	109	4	.....	4	105	.....	105	85	17
Sandwich	545	50	595	1	.....	1	544	50	594	522	28
St. Thomas	120	2	122	1	.....	1	119	2	121	73	27
Sault Ste. Marie	271	10	281	.....	.....	.....	271	10	281	230	36
Sudbury	924	38	962	5	.....	5	919	38	957	898	32
Toronto	5,022	553	5,575	5	4	9	5017	549	5,566	2,490	1,540
Walkerton	37	1	38	.....	.....	.....	37	1	38	37	.....
Woodstock	88	4	92	.....	1	1	88	3	91	82	7
Welland	319	11	330	2	.....	2	317	11	328	282	31
Whitby	121	9	130	.....	.....	.....	121	9	130	112	10
Lock-ups:											
Atikokan	2	1	3	.....	.....	.....	2	1	3	1	2
Byng Inlet	6	.....	6	.....	.....	.....	6	.....	6	6	.....
Cobalt	112	1	113	.....	.....	.....	112	1	113	88	20
Mine Centre	2	.....	2	.....	.....	.....	2	.....	2	2	.....
	12,838	1,157	13,995	80	14	94	12,766	1,135	3,901	9,253	2,382

No. 3

the number of re-committals, the number for want of sureties to keep the peace, number of waiting trial, number sentenced, and number committed under civil process.

For the third time.	For more than the third time.	For want of sureties to keep the peace.	Witnesses.	Lunatics and idiots.	Fraudulent debtors.	Under civil process.	Acquitted on trial and discharged.	Discharged without trial.	Discharged under suspended sentence.	Died before trial.	Waiting trial.	Sentenced for any period.
5	5	.....	.....	10	.....	4	11	2	6	.....	2	67
22	21	.....	.....	2	.....	.....	145	.....	2	.....	3	98
13	22	.....	.....	.....	.....	.....	50	.....	.....	.....	4	67
4	3	.....	.....	3	.....	.....	12	2	9	.....	3	34
7	5	.....	.....	1	.....	.....	6	3	9	.....	3	75
1	.....	.....	.....	1	.....	.....	.....	1	3	.....	.....	16
3	.....	.....	.....	.....	.....	.....	9	.....	2	.....	3	25
13	6	.....	.....	2	.....	.....	9	3	8	.....	.....	85
5	6	.....	.....	5	.....	8	3	.....	14	.....	2	38
8	11	.....	.....	12	.....	.....	58	.....	20	.....	11	114
1	5	.....	2	6	.....	.....	31	.....	.....	1	1	83
.....	.....	.....	.....	3	.....	.....	7	2	.....	.....	1	38
5	9	.....	.....	3	.....	.....	12	.....	3	.....	1	55
.....	1	.....	.....	1	.....	.....	3	.....	.....	.....	.....	7
47	142	3	3	1	1	.....	5	40	8	.....	8	680
1	1	.....	.....	.....	.....	.....	24	.....	10	.....	.....	59
15	8	.....	.....	2	.....	1	5	59	9	.....	.....	90
.....	.....	.....	.....	7	.....	.....	13	.....	1	1	5	29
23	81	.....	.....	24	1	.....	254	13	.....	.....	3	247
.....	2	.....	.....	9	1	.....	1	.....	5	.....	2	17
.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	19
1	10	.....	.....	3	.....	48	5	.....	1	.....	1	59
1	.....	.....	.....	.....	.....	12	7	.....	7	.....	.....	24
5	7	.....	5	32	1	.....	24	20	.....	.....	1	284
3	3	.....	1	.....	18	.....	395	.....	.....	.....	13	209
14	30	.....	1	2	.....	.....	13	1	3	.....	2	102
.....	.....	.....	.....	7	.....	2	.....	1	.....	.....	.....	19
3	3	.....	.....	2	.....	.....	6	.....	2	.....	1	41
3	.....	.....	.....	2	1	.....	1	.....	.....	.....	.....	34
.....	.....	.....	.....	.....	.....	.....	4	.....	6	.....	1	47
11	7	.....	.....	3	.....	.....	11	46	.....	.....	.....	53
.....	.....	.....	.....	29	1	.....	39	.....	4	.....	3	377
3	.....	.....	2	4	.....	.....	46	15	3	.....	1	63
1	3	.....	.....	4	2	.....	14	.....	19	.....	3	20
17	22	.....	3	.....	.....	.....	29	.....	14	.....	2	175
7	5	.....	.....	1	.....	.....	9	66	3	.....	3	88
3	4	.....	.....	.....	.....	.....	26	20	24	.....	.....	39
35	10	.....	3	.....	5	.....	288	.....	4	.....	21	274
12	10	.....	.....	.....	.....	.....	30	15	18	.....	.....	59
13	2	.....	.....	19	.....	.....	39	14	.....	.....	3	206
15	17	.....	.....	19	.....	.....	48	247	12	.....	3	633
995	550	.....	39	95	3	.....	2,177	8	355	2	39	2,857
1	.....	.....	.....	6	.....	1	2	.....	.....	.....	11	18
3	.....	.....	.....	3	.....	.....	2	10	36	.....	.....	41
17	.....	.....	.....	.....	.....	.....	80	7	9	1	5	228
6	2	.....	.....	7	.....	.....	30	19	9	.....	6	59
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2
.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	31	.....	.....	.....	.....	82
.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
1,347	1,013	3	59	332	34	76	4,014	623	642	5	171	8,036

TABLE

Showing the number of prisoners upon whom sentences were passed, the nature of such
Criminal Court during the year

Name of gaol.	Total number of prisoners sentenced during the year.			Where sentenced to.					
	Male.	Female.	Total.	To gaol and afterwards transferred to the Reformatory.	To Reformatory for Ontario direct.	To gaol and afterwards transferred to female Reformatory.	To female Reformatory direct.	To Penitentiary.	Sentenced elsewhere.
Barrie	65	2	67	9	28	.....	.....	5	2
Belleville	94	4	98	4	27	.....	2	9	1
Brantford	63	4	67	14	8	1	1	2	.....
Brampton	30	4	34	.....	6	.....	.....	3	6
Brockville	71	4	75	.....	13	.....	3	3	4
Bracebridge	13	3	16	1	7	.....	1	1	.....
Cayuga	23	2	25	.....	9	.....	1	.....	.....
Cornwall	84	1	85	9	25	.....	.....	1	1
Cobourg	34	4	38	.....	5	.....	.....	.....	1
Chatham	105	9	114	6	17	.....	2	4	4
Fort Frances	79	4	83	.....	3	.....	.....	.....	1
Goderich	38	.....	38	2	7	.....	.....	.....	.....
Guelph	54	1	55	.....	21	.....	1	8	3
Gore Bay	6	1	7	.....	1	.....	.....	.....	.....
Hamilton	604	76	680	103	58	9	24	13	.....
Kingston	53	6	59	6	7	2	.....	2	.....
Kitchener	83	7	90	3	50	.....	4	5	2
Kenora	29	.....	29	3	.....	.....	.....	2	4
London	228	19	247	16	27	1	4	7	.....
Lindsay	17	.....	17	.....	5	.....	.....	.....	.....
L'Orignal	18	1	19	.....	4	.....	.....	2	.....
Milton	57	2	59	.....	7	.....	1	3	3
Napanee	22	2	24	1	4	.....	.....	2	2
North Bay	265	19	284	55	93	6	10	13	.....
Ottawa	177	32	209	21	31	.....	11	5	5
Owen Sound	101	1	102	6	5	.....	1	11	.....
Orangeville	16	3	19	.....	.....	.....	.....	1	3
Perth	41	.....	41	1	7	.....	.....	.....	.....
Picton	34	.....	34	.....	.....	.....	.....	.....	2
Pembroke	45	2	47	2	6	.....	.....	1	.....
Peterborough	46	7	53	3	6	3	3	3	.....
Port Arthur	364	13	377	341	.....	.....	4	12	1
Parry Sound	61	2	63	.....	14	.....	.....	5	32
Simcoe	20	.....	20	.....	.....	.....	.....	2	.....
St. Catharines	167	8	175	52	.....	.....	.....	3	2
Sarnia	87	1	88	16	.....	.....	.....	2	7
Stratford	37	2	39	7	3	.....	.....	2	.....
Sandhurst	251	23	274	.....	68	16	.....	10	.....
St. Thomas	57	2	59	2	19	.....	.....	1	2
Sault Ste. Marie	202	4	206	32	.....	1	6	.....	.....
Sudbury	611	22	633	172	87	10	.....	13	1
Toronto	2,595	262	2,857	1,422	812	18	15	68	111
Walkerton	18	.....	18	.....	.....	.....	.....	.....	.....
Woodstock	39	2	41	2	7	2	.....	5	.....
Welland	221	7	228	76	.....	1	.....	3	1
Whitby	55	4	59	24	.....	.....	.....	10	3
Lock-ups:									
Atikokan	2	.....	2	.....	.....	.....	.....	.....	2
Byng Inlet	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cobalt	82	.....	82	.....	.....	.....	.....	.....	82
Mine Centre	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	7,464	572	8,036	2,411	1,497	70	94	242	288

No. 4

sentences, and the disposal of those who elected to be tried at the County Judge's ending September 30th, 1923.

Died while undergoing sentence.	To gaol and there detained until expiration of sentence or payment of fine.	Capital and corporal sentences.			County Judge's criminal court.		
		Number of prisoners sentenced to death and executed.	Number of prisoners sentenced to death and commuted to imprisonment.	Number of prisoners sentenced to corporal punishment with imprisonment.	Acquitted on trial and discharged from custody.	Found guilty and sentenced.	Total number who elected to be tried.
.....	23	.....	.....	.....	2	2	4
.....	55	.....	1	1	3	6	9
.....	41	1	.....	.....	.....	1	1
.....	19	.....	.....	1	3	5	8
.....	52	.....	.....	.....	1	11	12
.....	6	.....	.....	.....	.....	1	1
.....	15	.....	.....	.....	1	.....	1
.....	49	.....	.....	.....	.....	5	5
.....	32	.....	.....	.....	.....	9	9
.....	81	.....	.....	.....	1	5	6
1	78	.....	.....	.....	.....	.....	.....
.....	29	.....	.....	.....	1	2	3
.....	22	.....	.....	2	1	.....	1
.....	6	.....	.....	.....	2	1	3
.....	473	.....	.....	.....	17	51	68
.....	42	.....	.....	.....	3	6	9
.....	26	.....	.....	.....	2	8	10
.....	20	1	.....	1	.....	28	28
.....	192	.....	.....	.....	2	2	4
1	11	.....	.....	.....	1	4	5
1	12	.....	.....	.....	2	17	19
.....	45	.....	.....	.....	2	14	16
.....	15	.....	.....	.....	1	.....	1
1	106	.....	.....	.....	4	6	10
.....	136	.....	.....	.....	6	4	10
.....	79	.....	.....	.....	4	1	5
1	14	.....	.....	.....	.....	2	2
.....	33	.....	.....	.....	7	4	11
.....	32	.....	.....	.....	.....	.....	.....
1	37	.....	.....	.....	.....	.....	.....
.....	35	.....	.....	.....	.....	.....	.....
.....	19	.....	.....	.....	8	12	20
.....	12	.....	.....	.....	1	8	9
.....	18	.....	.....	.....	.....	.....	.....
.....	118	.....	.....	.....	1	6	7
.....	63	.....	.....	1	6	2	8
.....	27	.....	.....	.....	1	4	5
.....	180	.....	1	.....	8	3	11
.....	35	.....	.....	1	4	4	8
1	166	.....	.....	.....	4	15	19
.....	350	.....	.....	1	2	7	9
3	408	.....	.....	7	58	293	351
.....	18	.....	.....	.....	2	1	3
.....	25	.....	.....	.....	.....	1	1
.....	147	.....	.....	.....	.....	5	5
.....	22	.....	.....	.....	30	59	89
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
10	3,424	2	2	15	189	615	806

TABLE

Showing the number of prisoners, how maintained, cost of maintenance, and

Name of gaol.	Name of gaoler.	How maintained.				
		Total number of prisoners committed during the year.	Number of prisoners whose maintenance was defrayed by the Province.	Number of prisoners whose maintenance was defrayed by the municipalities.	Number of days' custody of Government prisoners.	Number of days' custody of municipal prisoners.
Barrie	H. E. Stoddart	102	38	64	1,112	1,859
Belleville	T. Ketcheson	250	210	40	3,285	199
Brantford	Jno. Cook	121	21	100	655	1,469
Brampton	L. C. O'Neil	63	30	33	592	329
Brockville	T. A. McLean	97	66	31	1,746	492
Bracebridge	D. M. McDonald	21	21	.....	1,389	.....
Cayuga	T. Walsh	39	22	17	758	254
Cornwall	T. W. Ault	107	47	60	1,074	1,023
Cobourg	G. McLaughlin	70	28	42	999	1,513
Chatham	M. W. Shaw	215	101	114	3,237	2,596
Fort Frances	R. Bolton	124	124	.....	3,047	.....
Goderich	J. B. Reynolds	51	21	30	824	513
Guelph	F. L. Cosby	74	48	24	812	388
Gore Bay	S. Cronkhite	11	11	.....	831	.....
Hamilton	F. Lalonde	749	195	554	4,448	7,401
Kingston	J. T. Hawkey	93	41	53	1,220	1,894
Kitchener	J. Cook	166	62	104	2,104	1,099
Kenora	E. W. Cox	56	56	.....	2,146	.....
London	B. L. Dawson	542	134	408	1,577	4,739
Lindsay	H. W. Stone	35	8	27	326	511
L'Orignal	F. Millette	21	2	19	300	503
Milton	A. McGibbon	121	30	91	1,109	1,232
Napanee	W. E. Loyst	50	22	28	390	169
North Bay	J. W. Bourke	367	348	19	8,392	93
Ottawa	A. G. Dawson	636	81	555	3,858	7,401
Owen Sound	W. A. Grier	124	70	54	999	1,743
Orangeville	G. A. Leighton	29	3	26	228	3,753
Perth	J. Oates	52	24	28	564	1,491
Picton	E. Croft	38	18	20	690	146
Pembroke	W. Brown	58	25	33	970	1,002
Peterborough	H. Nesbitt	113	22	91	666	1,590
Port Arthur	G. F. Lasseter	453	108	345	1,659	3,735
Parry Sound	T. W. Keating	134	134	.....	2,159	.....
Simcoe	O. Robertson	62	38	24	377	210
St. Catharines	J. J. Dundas	223	55	168	964	2,347
Sarnia	J. N. Dodd	170	34	136	1,020	1,983
Stratford	A. T. Trethewey	109	56	53	980	879
Sandwich	W. A. Wanless	595	122	473	3,527	8,730
St. Thomas	W. F. Luton	122	59	63	1,662	840
Sault Ste. Marie	R. M. Hearst	281	281	.....	8,112	.....
Sudbury	J. Sullivan	962	359	603	2,081	5,158
Toronto	G. H. Basher	5,575	1,698	3,877	9,796	25,518
Walkerton	W. Hyndman	38	15	23	646	984
Woodstock	R. G. Forbes	92	35	57	832	931
Welland	J. Kottmeier	330	91	239	1,723	3,169
Whitby	J. Stiner	130	89	41	481	2,967
Lock-ups:						
Atikokan	J. L. McGregor	3	3	.....	.....	.....
Byng Inlet	B. Moore	6	6	.....	.....	.....
Cobalt	A. Parcher	113	113	.....	.....	.....
Mine Centre	J. R. Gilbert	2	2	.....	.....	.....
Totals	.....	13,995	5,227	8,768	86,367	102,853

No. 5
salaries of various gaol officials for the year ended 30th September, 1923.

Expenditure.					Salaries.			
Cost of fuel, food and clothing.	Cost of official salaries.	Cost of repairs.	Total gaol expenditure for the year.	Average cost per prisoner for entire gaol expenditure.	Gaolers.	Turnkeys.	Matrons.	Gaol surgeons.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,505 78	3,051 00	443 68	6,000 46	58 82	1,100 00	1,184 00	542 00	225 00
3,894 28	2,000 00	40 00	5,934 28	23 75	700 00	650 00	400 00	250 00
1,206 42	3,995 48	240 41	5,442 31	44 97	1,225 00	2,172 48	350 00	248 00
1,193 48	1,500 00	145 02	2,838 50	45 05	550 00	600 00	250 00	100 00
1,814 36	2,250 00	23 15	4,087 51	42 14	1,150 00	750 00	200 00	150 00
407 90	1,200 00	28 00	1,635 90	77 90	900 00	.....	150 00	150 00
786 72	940 00	.....	1,726 72	44 27	600 00	.....	200 00	140 00
1,139 39	2,600 00	717 56	4,456 95	41 65	1,500 00	600 00	350 00	150 00
2,728 81	2,354 50	622 37	5,705 68	81 50	1,000 00	912 00	242 50	200 00
1,602 88	3,490 00	1,442 55	6,535 43	30 36	916 66	1,800 00	573 34	200 00
775 17	2,401 50	30 40	3,207 07	25 70	900 00	1,100 00	300 00	101 50
1,581 00	1,996 35	154 10	3,731 45	73 55	800 00	851 35	225 00	120 00
1,381 31	2,250 00	.....	3,631 31	49 07	900 00	850 00	300 00	200 00
1,025 68	835 00	14 65	1,875 33	170 48	550 00	85 00	200 00	.....
3,865 81	13,541 40	980 56	18,387 77	24 52	1,187 50	11,541 16	812 74	.....
1,681 60	4,062 00	100 00	5,843 60	62 40	1,350 00	1,962 00	400 00	350 00
1,260 58	2,511 50	256 08	4,028 16	24 26	1,100 00	976 50	300 00	135 00
2,707 56	2,821 00	.....	5,528 56	98 01	900 00	1,521 00	200 00	200 00
1,752 07	9,863 22	70 69	11,685 98	21 56	1,200 00	7,313 22	1,000 00	350 00
1,097 97	2,124 20	453 30	3,675 47	105 00	900 00	924 20	200 00	100 00
339 76	1,830 00	9 85	2,179 61	103 79	750 00	730 00	250 00	100 00
637 39	1,650 00	20 74	2,308 13	19 08	800 00	600 00	200 00	50 00
582 75	1,275 00	10 00	1,867 75	37 33	1,000 00	.....	200 00	75 00
8,616 94	6,024 50	122 87	14,764 31	40 23	750 00	4,957 90	166 60	150 00
9,422 29	8,517 64	303 97	18,243 90	28 68	2,000 00	5,502 64	650 00	365 00
2,926 30	2,552 50	25 00	5,503 80	44 38	1,200 00	802 50	300 00	250 00
3,086 12	1,525 00		4,709 13	162 31	1,000 00	.....	400 00	125 00
1,698 32	1,936 00	477 12	4,111 44	79 06	1,000 00	800 00	36 00	100 00
651 00	975 00	366 00	1,992 00	52 52	700 00	.....	200 00	75 00
1,574 60	2,255 00	.....	3,829 60	66 02	1,200 00	730 00	225 00	100 00
907 89	1,900 00	10 00	2,817 89	24 94	900 00	700 00	150 00	150 00
4,225 72	6,292 00	.....	10,517 72	23 21	1,200 00	4,540 00	300 00	252 00
826 16	2,162 50	42 85	3,031 51	22 62	900 00	912 50	200 00	150 00
421 70	2,125 00	138 03	2,684 73	43 23	840 00	960 00	250 00	75 00
2,438 78	3,251 42	363 74	6,053 94	27 14	1,416 60	1,384 82	300 00	150 00
1,500 08	2,575 00	438 68	4,513 76	26 55	1,075 00	900 00	400 00	200 00
1,822 55	2,597 00	33 33	4,452 88	40 85	1,042 00	935 00	470 00	150 00
6,011 14	8,929 24	105 13	15,045 52	26 96	1,350 00	6,479 25	600 00	500 00
1,909 47	3,062 00	42 20	5,013 67	40 95	1,000 00	1,585 00	300 00	177 00
5,035 05	4,100 00	498 71	9,633 76	34 29	840 00	2,760 00	200 00	300 00
1,762 85	3,871 50	.....	5,634 35	5 85	1,000 00	2,471 50	250 00	150 00
12,543 78	31,454 53	2,678 52	46,676 83	8 37	3,087 00	23,012 53	3,855 00	1,500 00
913 30	1,725 00	250 00	2,888 30	76 00	800 00	600 00	250 00	75 00
2,367 17	2,265 00	545 30	5,177 47	56 57	900 00	937 00	328 00	100 00
2,635 11	3,263 50	451 83	6,350 44	19 24	1,056 00	1,710 50	297 00	200 00
1,671 64	2,050 00	21 95	3,743 59	28 79	800 00	900 00	200 00	150 00
.....	150 00	.....	150 00	.....	150 00	.....	.....	.....
.....	300 00	.....	300 00	.....	300 00	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	300 00	.....	300 00	.....	300 00	.....	.....	.....
110,936 63	176,701 49	12,816 35	300,454 47	.....	48,785 76	100,704 05	18,173 18	9,038 50

TABLE No. 6

Showing the total number of prisoners who were in the several gaols of the Province on the evening of the 30th September, 1923, and the nature of their imprisonment; also number of cells in each gaol.

Name of Gaol	Classification				Nature of Imprisonment						Total number of persons who remained in custody 30th Sept., 1923	Total number of cells
	Men	Women	Boys under 16 years	Girls under 16 years	Waiting trial	Under sentence for periods of 2 months and under	Under sentence for periods over 2 months	In default of sureties to keep the peace	Insane, idiotic, or imbecile persons	Otherwise detained		
Barrie	8				2		6				8	23
Belleville	5		2		2	1	3		1		7	38
Brantford	7				4	3					7	24
Brampton	5				2		3				5	25
Brockville	7				1	1	5				7	33
Bracebridge	1						1				1	15
Cayuga	4				3	1					4	14
Cornwall	8						8				8	17
Cobourg	5	1			2	1	3				6	24
Chatham	19	2			9	3	9				21	38
Fort Frances	6	1			1		5		1		7	10
Goderich	4				1		3				4	12
Guelph	3				1		2				3	18
Gore Bay	4				1	3					4	12
Hamilton	35	9			5	19	13			7	44	75
Kingston	2						2				2	49
Kitchener	4	1					5				5	20
Kenora	10				2		8				10	14
London	9				3	2	1		3		9	57
Lindsay	5				1		4				5	24
L'Orignal	2					2					2	18
Milton	6	1					7				7	18
Napanee	1					1					1	18
North Bay	14	1			1	6	3		3	2	15	20
Ottawa	25	6			13	5	13				31	93
Owen Sound	11	1			2		8			2	12	32
Orangeville	9	1					9		1		10	22
Perth	3				1		2				3	18
Picton	1						1				1	18
Pembroke	2	1				2	1				3	24
Peterborough	3				1	1	1				3	18
Port Arthur	8				3		3		2		8	40
Parry Sound	5				1	1	3				5	26
Simcoe	5				3		2				5	18
St. Catharines	19	1			2	8	7			3	20	38
Sarnia	9	1			2	6	2				10	13
Stratford	4					3	1				4	30
Sandwich	34	3			21	9	7				37	58
St. Thomas	10				7		3				10	16
Sault Ste. Marie	22				3	6	9		3	1	22	23
Sudbury	18				3	7	6		2		18	22
Toronto	64	10	1		35	23	14		3		75	270
Walkerton	4					2	2				4	24
Woodstock	2						2				2	32
Welland	13	1			4	6	4				14	48
Whitby	6	1			3	1	2		1		7	28
Lock-ups:												
Atikokan												3
Byng Inlet												7
Cobalt												6
Mine Centre												3
	451	42	3		145	123	193		20	15	496	1546

TABLE No. 7

Showing the number of escapes and deaths, the revenue derived from prison labour, the cost of diet, the accommodation of the various gaols and the highest and lowest number of prisoners in custody during the year ending September 30th, 1923.

Name of gaol.	Prisoners who escaped and evaded recapture.	Prisoners who escaped and were re-captured.	Prisoners who died.	Number of cells in each gaol.	Greatest number of prisoners confined in gaol at any time during the year.	Lowest number of prisoners confined in gaol at any time during the year.	Actual cash revenue derived from prison labour.	Cost of daily rations for prisoners.
							$ c.	Cents.
Barrie				23	17	1		15.50
Belleville				38	19	2		17.92
Brantford				24	15	2		15.80
Brampton				25	7	1		12.68
Brockville				33	14	3		18.26
Bracebridge				15	8			13.48
Cayuga				14	7	1		16.00
Cornwall				17	14	1		18.50
Cobourg				24	20	1		17.00
Chatham				38	28	5		11.33
Fort Frances			2	10	12	1		23.25
Goderich				12	8	1		15.75
Guelph				18	12	2		12.50
Gore Bay				12	9	1		45.00
Hamilton		2		75	51	17		10.03
Kingston				49	17	2	3,850 00	16.25
Kitchener				20	20	2		14.39
Kenora			1	14	12	1		21.50
London				57	34	7		11.50
Lindsay			1	24	5			12.12
L'Orignal			1	18	5	1		22.00
Milton				18	13	1		13.85
Napanee				18	7			15.68
North Bay			1	20	50	11		18.00
Ottawa				93	77	24	600 75	16.00
Owen Sound				32	18	2		17.86
Orangeville			1	22	14	8		19.75
Perth				18	12	1		14.00
Picton				18	6	1		21.10
Pembroke			1	24	10	1		13.33
Peterborough				18	14	1		18.25
Port Arthur				40	29	8		16.60
Parry Sound				26	18	1		20.83
Simcoe				18	9			13.50
St. Catharines				38	20	3		16.00
Sarnia				13	17	2		18.00
Stratford				30	13	1		11.81
Sandwich				58	56	17		15.80
St. Thomas				16	15	1		12.00
Sault Ste. Marie		1	1	23	34	13		22.50
Sudbury				22	44	9		24.35
Toronto			5	270	142	60		19.40
Walkerton				24	12	1		14.00
Woodstock				32	10			14.70
Welland	1	3	1	48	25	4		14.33
Whitby				28	21	4		15.60
Lock-ups:								
Atikokan				3				
Byng Inlet				7				
Cobalt				6				
Mine Centre				3				
Totals	1	6	15	1,546	1,020	226	4,450 75	

TABLE No. 8

Showing the daily cost per prisoner in each of the gaols, excluding the District Lock-ups, for the year ending September 30th, 1923.

Name of gaol.	Number of prisoners committed during the year.	Total days' stay of prisoners during the year.	Cost of fuel, food and clothing.	Average cost per day for each prisoner.
			$ c.	Cents.
Barrie	102	2,971	2,505.78	84.39
Belleville	250	3,484	3,894.28	111.71
Brantford	121	2,124	1,206.42	56.79
Brampton	63	921	1,193 48	129.58
Brockville	97	2,238	1,814 36	81.07
Bracebridge	21	1,389	407 90	29.36
Cayuga	39	1,012	786 72	77.73
Cornwall	107	2,097	1,139 39	54.33
Cobourg	70	2,512	2,728 81	108.63
Chatham	215	5,833	1,602 88	27.30
Fort Frances	124	3,047	775 17	25.43
Goderich	51	1,337	1,581 00	118.24
Guelph	74	1,200	1,381 31	115.11
Gore Bay	11	831	1,025 68	123.39
Hamilton	749	11,849	3,865 81	32.62
Kingston	93	3,114	1,681 60	54.00
Kitchener	166	3,203	1,260 58	39.35
Kenora	56	2,146	2,707 56	126.16
London	542	6,316	1,752 07	27.73
Lindsay	35	837	1,097 97	131.18
L'Orignal	21	803	339 86	42.32
Milton	121	2,341	637 39	27.22
Napanee	50	559	582 75	104.25
North Bay	367	8,485	8,616 94	115.55
Ottawa	636	11,259	9,422 29	83.68
Owen Sound	124	2,742	2,926 30	106.72
Orangeville	29	3,981	3,086 12	77.52
Perth	52	2,055	1,698 32	82.64
Picton	38	836	651 00	77.87
Pembroke	58	1,972	1,574 60	79.84
Peterborough	113	2,256	907 89	40.24
Port Arthur	453	5,394	4,225 72	78.54
Parry Sound	134	2,159	826 16	38.26
Simcoe	62	587	421 70	71.84
St. Catharines	223	3,311	2,438 78	73.65
Sarnia	170	3,003	1,500 08	49.95
Stratford	109	1,859	1,822 55	98.03
Sandwich	595	12,257	6,011 14	49.00
St. Thomas	122	2,502	1,909 47	76.31
Sault Ste. Marie	281	8,112	5,035 05	62.07
Sudbury	962	7,239	1,762 85	24.35
Toronto	5,575	35,314	12,543 78	35.52
Walkerton	38	1,630	913 30	56.01
Woodstock	92	1,763	2,367 17	134.26
Welland	330	4,892	2,635 11	53.78
Whitby	130	3,448	1,671 64	48.48
Totals	13,871	189,220	110,936 63	58.62

FIFTY-SIXTH ANNUAL REPORT

ON THE

Reformatories and Gaols of the Province

Introductory Comment

A report made upon the operation of Reformatories and Gaols must necessarily deal with crime. It is, in fact, a history of the crime of the Province for a given period, and to the student of public affairs reflects a feature of our national life which cannot be overlooked when taking stock of our development.

The problem of crime is like the problem of poverty—it is with us and has come to stay. This statement is neither pessimism nor prophecy; it is a fact which must be considered in every estimate made of national characteristics, in any social movement or in any scheme of reform.

Causes of Crime

Crime is a consequence, a result of some cause—a cause for which the criminal may or may not be responsible. The Psalmist exclaims: "Behold, I was shapen in iniquity." Further on his prayer is: "Let not iniquity have dominion over me." Without attempting to dogmatize on what he meant, it is sufficient to state here that crime in its causes may be classified under three heads: Heredity, Environment, and a Fundamental Tendency to revert to a lower stage in moral development, in which man resolves to do evil in spite of the prohibitions of God, human government, and his own conscience. Which of these causes is the greater may be left to theologians and penologists to decide.

The crimes of intemperance, licentiousness, and indulgence in vice are undoubtedly due in a great degree to heredity. On the other hand, given a sound moral inheritance, a child who might have little temptation to immorality, if surrounded by evil associates would yield to the pressure of environment, and when faced with a popular temptation his hereditary standards would weaken. As a cause of crime, heredity is more insidious and subtle, while environment is more superficial and conventional, though equally powerful. The third cause—the fundamental tendency to wickedness, or what the theologians call original sin—plays a smaller part in the make-up of the criminal. It is not so predisposing as heredity, nor so direct a force as example. The youth who, in spite of a college education, turns out to be a profligate, is an example of the power of heredity. His background weighs more than his education. The child born in a home with a high moral average, and who has been indulged in everything he wants, has insufficient will power to withstand the lure of temptation. He does not lead the way, but he readily falls into the swim, whether that swim be good or evil, and is carried along irrespective of his inheritance. But the incorrigible child, who is an example of perversity or original sin, is an exceptional and unnatural creature. It is true that we have a few young criminals of this class who, like the Irish agitator, seem to have a double dose of original sin. They are absolutely useless. Nobody wants them, their own parents did not want them in the first place, and at a very early age lost all control over them.

It may, therefore, be safely stated that as determining factors in crime, the two outstanding causes, a bad inheritance, including a defective moral sense, and a bad environment, including bad homes, a bad neighbourhood, and bad associates, cover the entire field. The blight of original sin is insignificant when compared with the far-reaching consequences of a vicious inheritance, extending back through generations, and the evil power of example which a penologist of high repute declares to be the "master cause of crime."

Where people live amid natural conditions, there is less of an incentive or temptation to crime; but where individuals congregate in large numbers, human nature resents the artificial limitations and restrictions, and expresses itself in all forms of vice and crime. The crimes of thinly populated sections are few and simple. The crimes of highly civilized communities are many and diversified. As an illustration, we may state that the population of the city of Toronto is about one-fifth that of the Province, or 20 per cent. But the total number of persons committed to Toronto gaol is about 40 per cent. of those in the entire Province. That is to say, Toronto, with one-fifth the population, has two-fifths of the crime. Yet Toronto is highly civilized, is an educational centre, a seat of government, and a city of churches; but neither the university, the government, nor the churches have prevented Toronto from contributing 40 per cent. of the crime of the Province, and without its gaol and its policemen Toronto would not be safe either for life or for property. That is one way to view the subject of crime, and if there is any moral to be deducted herefrom it is this, that, concomitant with the elements of civilization, we must carry in our social equipment the facilities for imposing a penalty. This is no discount on the value of education, nor of religion; but it is a high tribute to pay to the value of the Common Gaol, which, with all its traditions of the past, still remains as a safe asset, protecting the innocent against the guilty and the property of the many against the depredations of the few. But the Common Gaol is something more than a safe place of restraint. A man of mature years, educated in literature and in law and in chemistry, makes this statement:

> "I hope when my time comes to die that I will die within the precincts of a gaol."

Why this wish? His answer is equally as logical:

> "When in gaol I am always penitent, trying and hoping to do better, but when I get out into civilized society I lose my penitence and my hope of salvation."

To this man the gaol was a city of refuge where he felt safe from the temptations of civilization and where he was able to live in a proper attitude towards God and man. And this man represents a class or type of humanity little known to the average citizen.

On any given day in the year, we have in the Ontario penal institutions, including penitentiaries, about 2,500 persons. The safety of society renders it necessary that this small army of law-breakers be locked up. There is another army, probably five times as large who are not yet locked up, and who are a danger to society. It is not difficult to imagine what would happen if we were to open the doors of our gaols and other penal institutions, and turn these prisoners loose into society. Human life and property, with all other human interests, legitimate and innocent, would be endangered. From whatever aspect we view the much-maligned Common Gaol, it is apparent that we cannot

dispense with it. There are several of the smaller gaols which might well be closed up and the expense saved to the county if the county councils would consent to unite with the adjoining county.

Reforming agencies change their names. Prison reformers come and go, but the criminal is still with us despite the efforts of those who have advocated special methods of restoring him to his place as a person with a moral outlook on life. Not until human nature is revolutionized and regenerated will crime cease. And in this connection I would put in a word for proper GENERATION instead of pinning our faith to REGENERATION. If persons are born right, there is not much need for a scheme of regeneration. If we wish to begin at the beginning we must include in any scheme of reform or regeneration the science of Eugenics.

The several tables which follow set forth in statistical form the ebb and flow of the criminal population of Ontario. In the table immediately following, a comparison is made between the Gaol population for each of the last ten years, 1903 to 1913 and 1913 to 1923.

Table showing total committals, during twenty years, also committals for Larceny, Robbery, etc., Drunkenness.

	1903	1913	1923
Total Committals	9,261	19,250	13,995
Larceny, Robbery, etc	1,595	2,919	2,470
Drunkenness	2,987	8,362	3,482

From this table it is seen that the gaol population increased from 9,261 in 1903 to 19,250 in 1913, over 100 per cent. Also that between 1913 and 1923 there has been a decrease of over 5,000 persons committed. There are many causes that enter into an increase or decrease in the Gaol population, but unemployment is perhaps the most important. When men are doing nothing they get into mischief and land in gaol. Crimes for theft, larceny, receiving, etc., show an increase during the ten years between 1903 and 1913 of over 1,300, and a decrease of nearly 500 between 1913 and 1923, while the popular pastime of getting drunk has been reduced by 4,880 in the last ten years.

In other respects there is little change. To those who are interested in this feature of our national life, we commend the information given in this report.

W. W. DUNLOP,
Inspector.

THE ONTARIO REFORMATORY, GUELPH, CANADA

December 1st, 1923.

Dear Sir:

Attached is the custodial report of this institution, for the year ending the 31st of October, 1923. You will note that, in spite of the so-called crime wave, the number of committals to this institution during the past year were 213 less than the year previous. I would also draw your attention to the large number of men who left the institution under the supervision of the Ontario Parole Commission, and the Act for the Extra-Mural Employment of Sentenced Persons, and what is more important the very large number of these men who to date have conducted themselves as good citizens. The general health of the inmates has been good, and the high standard of discipline maintained remarkable, when one considers the great amount of trust reposed in these men.

The work of improving the farm lands of the institution, and what in the past has been waste soil, has continued. This, together with considerable landscape improvement, has added greatly to the appearance of the property. Work in the industries has shown growth, but if the work in these mills is to continue steadily, and therefore with profit, we must have an assured market. It is time, therefore, that an enlarged market be assured us for the products of the woollen mills, wood-working shop, iron shop, cannery, quarry and abattoir. An amazing amount of material and value goes through these industries every year, but this amount can be greatly increased with practically no additional capital expenditure. Other lines of work in addition might easily be carried on here, to the great benefit of the public institutions, which are not being done at the present time.

May I take this means of expressing my very hearty appreciation of the good will and assistance we have received from yourself and other officers of the Department, and especially of the co-operation and good will and interest shown by the members of the staff of this institution. We are fortunate in having officers who work so well together that the institution runs smoothly and well.

Sincerely yours,

C. F. Neelands,
Superintendent.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ont.

TORONTO MUNICIPAL FARM, LANGSTAFF, ONT.

Langstaff, Ont., November 28th, 1923.

Sir:

I have the honour to submit herewith my seventh annual report of the Toronto Municipal Farms at Langstaff and Concord.

During the year under review 1,549 males, a decrease of 136 under the previous year, and 201 females, a decrease of 19 under last year, passed through the institution; there were eight deaths, all of whom were aged inmates; there were seven attempted escapes from the women's branch, all of whom were

promptly recaptured and properly dealt with; there were seven successful escapes from the men's branch, and three others who were captured and dealt with.

The health of the institution has remained on a very satisfactory footing as regards epidemic diseases, while from social diseases under the Venereal Disease Act there were a number of commitments; this is more prevalent among the females. I am enclosing reports from Dr. C. P. Johns, L.R.C.P., and Dr. L. C. Langstaff, M.B., in review of the medical work of the year.

The discipline of the inmates remains exceptionally good, but still no good conduct time is allowed here as at other institutions where prisoners are sent.

In conclusion, permit me to thank you, sir, and other officers of the Department, for your kind consideration and help in the work of the institution. I also desire to express my thanks to all who have given time and attention to the spiritual and social welfare of the inmates, among whom I would mention Captain and Mrs. McRae, of the Salvation Army; Rev. Canon Davidson, of the Church of England; the Rev. Father Flanagan, of the Roman Catholic Church, and Mr. Graham, of the West End Y.M.C.A., and a number of other friends who have assisted in the way of entertainments and sports and the gathering of clothing and underwear for those in need.

I have the honour to be, Sir,

Your obedient servant,

W. J. Morrison (Major),
Superintendent.

W. W. Dunlop, Esq.,
Inspector of Prisons,
Parliament Buildings, Toronto, Ont.

THE SALVATION ARMY

Toronto, Ont., December 11th, 1923.

Dear Sir:

I have pleasure in again enclosing our annual report of the work of the Salvation Army in the prisons and police courts of Ontario.

The report reveals the work of our devoted officers who are charged with the responsibility of carrying out the principles of the Salvation Army in its work amongst the lapsed and fallen, caring for those who are in need of a friend, and giving the helping hand.

It has been our pleasure to co-operate with the officials of the many institutions, our aim being not only to bring about the reformation of the inmates, but to reach the heart, and thus effect a deeper change, namely conversion.

The year just closed has proved again a very strenuous period financially, and a heavy deficit, borne by our central funds, is the result.

We are very anxious not to curtail any of our agencies, and thank you for all your past interest.

I am, yours sincerely,

Henry E. Otway (Colonel),
Men's Social Secretary.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ont.

REPORT OF SALVATION ARMY WORK

In presenting this brief report for the year ending September 30th, 1923, by the various officers of the Salvation Army in the various institutions, we give thanks to God for the open door of opportunity thus given and the results recorded.

Our officers realize continually that the problem confronting them is to deal successfully with waste material and human wrecks, and this is not that which responds most readily or easily to the effort.

It is found that many are too steeped in crime, and their early training has been so neglected that, in many cases, they are more difficult to reach then those who are dark and ignorant; the conscience has become dull, seared and inactive and very difficult to arouse. By kind and gentle and yet firm handling, however, gradually the most hardened will often respond, and then the heart opens to receive the message of life, and it is our great pleasure to be able to report that the "broken earthenware" has been remade, and many to-day are, by the efforts of our officers, re-established in the paths of virtue and honour, and are doing well.

TENTH ANNUAL REPORT OF THE INDUSTRIAL FARM, BURWASH, ONTARIO, FISCAL YEAR, 1923

The Industrial Farm,
Burwash, Ont.

Dear Sir:

I have the honour to submit to you the annual report for the year ending October 31st, 1923, together with financial and statistical reports covering the operations of the institution for the past year.

Our average daily count of inmates is 296, which shows a decrease on past years. This, no doubt, is due to a certain extent to improved employment conditions in this part of the country.

The health of our institution has been fairly good, with the exception of a slight epidemic of diphtheria, which was soon stamped out by the prompt action taken by yourself in sending doctors and nurses.

We have during the past year completed quite a large building programme, including a new camp which will accommodate 75 inmates. This will take the place of our old No. 1 camp, which is now being dismantled. We have also built horse barns, cow barns, piggery, and storage houses for roots. I may also say that all buildings have been practically built by prison labour only, which, of course, has materially lessened the cost of construction.

There has been an additional 40 acres of land cleared, which makes a total of about 750 acres now under cultivation; also about 100 acres of bush land slashed, which will be cleared as soon as possible.

There has been considerable fencing done in the past year, which has permitted more pasture land for our cattle.

Our lumbering operations have been fairly successful, though not on such a large scale as in previous years, due partly to the decrease in our population. All lumber and shingles have been used for our own construction work, and shipped to other institutions from time to time as instructed.

A dentist has been appointed during the past year who is doing very valuable work among the inmates. This work should be encouraged to the fullest extent, as there is no doubt it has a great bearing on the health of the inmates.

The farming end of the institution is becoming such a large problem that I would recommend there should be more power machinery used. This, of course, would entail constructing a building so that the different machinery would be properly housed during the cold winter months. This building should be constructed this year.

In conclusion, I wish to take this opportunity to thank all the officers, employees and ministers of the different denominations for their loyal support appertaining to the welfare of this institution.

I have the honour to be, Sir,

Your obedient servant,

W. Oliver,
Superintendent.

W. W. Dunlop, Esq.,
Inspector of Prisons and Public Charities,
Parliament Buildings, Toronto, Ont.

TABLE

Showing the number of prisoners in custody at 30th September, 1922, the the number in custody

	In custody at 30th Sept., 1922	Committed during year.	Total number in custody.	Discharged on expiration of sentence.	Discharged by ticket-of-leave.	Discharged by Parole Board.	Discharged by payment of fines.
Ontario Reformatory—Guelph	486	757	1,243	469	35	220	11
Ontario Reformatory—Clay Plant, Mimico	97	235	332	138	8	34	2
Industrial Farm, Burwash	299	680	979	532	15	84	13
Industrial Farm,—Fort William	31	319	350	219	3	1	48
Toronto Municipal Farm—Langstaff (males)	197	1,352	1,549	1,207	8	23	146
Toronto Municipal Farm—Langstaff (females)	69	132	201	113	1	3	14
Mercer Reformatory—Toronto	158	159	317	105	....	44	3
Totals	1,337	3,634	4,971	2,783	70	409	237

TABLE No. 2.

Showing Social Conditions.

Married	1,343
Single	2,291
	3,634

TABLE No. 3.

Showing the Educational Status.

Read and write	3,242
Neither read nor write	392
	3,634

TABLE No. 4.

Showing the Habits of Prisoners.

Temperate	1,498
Intemperate	2,136
	3,634

TABLE No. 5.

Showing the Religions of Prisoners.

Anglicans	709
Methodists	416
Presbyterians	545
Roman Catholics	1,504
Other religions	460
	3,634

No. 1

number received during the year, the number discharged, died, etc., and at 30th September, 1923.

Discharged by remission of sentence.	Discharge by Order-in-Council.	Discharged by Minister of Justice.	Conditional discharges.	Other reasons.	Escaped.	Returned to gaols.	Transferred to penitentiary.	Transferred to hospitals for insane.	Transferred to provincial institutions	Released on Writ of Habeas Corpus.	Died while in custody.	Remaining in custody at 30th September, 1923.
15	....	.....	.....	51	5	.....	.....	.....	9	.....	3	425
.....	....	.....	.....	29	9	.....	.....	.....	15	.....	.....	97
.....	7	.....	.....	31	9	.....	.....	10	7	.....	3	268
.....	1	.....	.....	.....	7	4	.....	.....	.....	.....	.....	67
.....	12	4	.....	6	7	3	.....	.....	2	.....	7	124
.....	1	.....	.....	1	.....	1	.....	.....	5	.....	1	61
.....	....	.....	.....	10	.....	.....	.....	3	8	.....	1	143
15	21	4	.....	128	37	8	.....	13	46	.....	15	1,185

TABLE No. 6.

Showing the Length of the Sentences.

One month	1,297
Two months	201
Three months	483
Four months	107
Five months	31
Six months	532
Eight months	16
Nine months	47
Ten months	5
One year	165
Fifteen months	18
Two years	43
Indefinite sentences	689
	3,634

TABLE No. 7.

Showing the Nationalities of the Prisoners.

Canadians	2,212
English	339
Irish	156
Scotch	183
United States	174
Other nationalities	570
	3,634

TABLE No. 8.

Showing the Crimes for which Prisoners were Committed.

Crimes against the person:	
Assault	72
Cutting, wounding, stabbing, shooting	24
	96

Crimes against property:		
Arson and incendiarism	..	
Burglary, housebreaking and larceny	563	
Forgery	31	
Fraud and false pretences	127	
Horsestealing	..	
Receiving stolen goods	129	
Trespass	70	
Miscellaneous	9	
		929
Crimes against public morals and decency:		
Bigamy	17	
Inmates of houses of ill-fame	20	
Keeping houses of ill-fame	66	
Perjury	7	
Seduction	11	
Indecent assault	73	
Miscellaneous	136	
		330
Offences against public order and peace:		
Escaping and obstructing constables	21	
Carrying unlawful weapons	11	
Drunk and disorderly	1,004	
Deserting and absenting from His Majesty's service	4	
Breaches liquor law	500	
Vagrancy	352	
Other offences	387	
		2,279
		3,634

TABLE No. 9.

Showing the Occupations of Prisoners when Committed.

Agricultural	250
Commercial	484
Domestic	359
Labourers	1,646
Mechanics	745
Professional	88
No occupation	62
	3,634

REPORT

OF THE

Board of License Commissioners for Ontario

ON THE OPERATION OF THE

ONTARIO TEMPERANCE ACT

FOR THE YEAR

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
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1924

PRODUCED BY
The United Press
LIMITED
TORONTO
CANADA

To His Honour HENRY COCKSHUTT,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to Your Honour the Report of the Board of License Commissioners for Ontario on the operation of *The Ontario Temperance Act* for 1923.

Respectfully submitted,
W. F. NICKLE,
Attorney-General.

Attorney-General's Department,
February 1st, 1924.

REPORT

of the

BOARD OF LICENSE COMMISSIONERS FOR ONTARIO

on the Operation of the

ONTARIO TEMPERANCE ACT

For the License Year 1922-23

OFFICE OF THE BOARD, 25 QUEEN'S PARK,
TORONTO, FEBRUARY 1, 1924.

TO THE HONOURABLE W. F. NICKLE, K.C., M.P.P.,
Attorney-General of the Province of Ontario.

SIR,—The Board of License Commissioners for Ontario has the honour to submit its Eighth Annual Report covering the operation of The Ontario Temperance Act for the year 1922-23, ending October 31, 1923.

THE SCHEDULES

Schedule A (1) gives the number of prosecutions by provincial officers. There were 51 convictions of holders of Standard Hotel Licenses, and 22 dismissals as compared with 25 convictions and 8 dismissals during the previous year. Convictions of non-licensees were 3,178 and dismissals 661, and for the previous year convictions were 2,969 and dismissals 606.

It should be noted that included in the prosecutions are 1,172 convictions and 105 dismissals on the charge of being found in a public place in a state of intoxication, and in the previous year the convictions for this cause were 1,117 and the dismissals 107.

Schedule A (2) gives the returns for the District of Manitoulin, the only District remaining under The Canada Temperance Act.

Schedule B shows by License Districts the revenue accruing to the Province from fines under The Ontario Temperance Act, the total being $379,509.31 as compared with $339,422.50 for the previous year.

Schedule C shows expenses of enforcing the Act, in the Districts, the total being $187,906.34 as compared with $214,398.04 for the previous year.

Schedule D shows the total revenue from this Branch for the fiscal year ending 31st October, 1923, to be $449,163.69 as compared with $530,242.14 for the previous year.

Schedule E shows revenues from fines accruing to municipalities which have appointed officers under Section 120 of The Ontario Temperance Act. These amount to $414,776.33 as compared with $364,925.80 for the previous year.

The two sums $414,776.33 received by municipalities and $379,509.31 received by the Province show an aggregate sum of $794,285.64 paid in fines

as compared with $704,348.30, the total for the previous year. In addition to fines paid liquor to the value of $110,150.47 was confiscated.

Schedule F shows the distribution of Standard Hotels, licensed under Section 146, by license districts numbering 1,252 as compared with 1,274 for the previous year.

Schedule G shows the names of Ontario Temperance Act Inspectors and their addresses and Districts.

Schedule H shows the number of commitments to County and District gaols during the past 13 years.

Schedule I makes a comparison between the two years 1914 and 1922 in commitments for all offences and commitments for drunkenness, with percentages.

Schedule J shows the list of licensed Standard Hotels at the present date.

Schedule K shows names of persons or companies to whom Native Wine Certificates under Section 44 have been issued.

Physicians' Liquor Prescriptions and Other Orders

The following table shows the numbers of prescriptions on Dispensaries and other orders during the past four years:

1920	*Doctors' Prescriptions*	*Other Orders*	*Total*
January	No record	No record	
February	76,390	9,306	85,696
March	69,340	8,447	77,787
April	60,717	7,821	68,538
May	57,499	7,547	65,046
June	51,913	6,550	58,463
July	50,605	6,575	57,180
August	47,286	6,274	53,560
September	54,938	6,789	61,727
October	55,798	6,243	62,041
November	51,754	5,835	57,589
December	74,323	7,897	82,220
	650,563	79,284	729,847

1921	*Doctors' Prescriptions*	*Other Orders*	*Total*
January	43,013	5,310	48,323
February	45,180	5,446	50,626
March	47,260	5,923	53,183
April	42,844	5,445	48,289
May	40,457	6,639	47,096
June	30,152	3,957	34,109
July	31,264	4,122	35,386
August	37,443	5,134	42,577
September	42,914	5,634	48,548
October	44,060	5,664	49,724
November	44,701	5,894	50,595
December	71,178	8,939	80,117
	520,466	68,107	588,573

1922	*Doctors' Prescriptions*	*Other Orders*	*Total*
January	42,726	6,184	48,910
February	44,775	6,170	50,945
March	52,079	7,086	59,165
April	50,419	6,694	57,113
May	49,266	6,799	56,065
June	48,719	6,747	55,466
July	47,022	6,717	53,739
August	52,174	7,543	59,717
September	53,237	6,858	60,095
October	52,232	7,005	59,237
November	53,060	6,902	59,962
December	77,605	8,625	86,230
	623,314	83,330	706,644

1923	*Doctors' Prescriptions*	*Other Orders*	*Total*
January	51,258	5,095	57,353
February	59,420	6,622	66,042
March	60,129	6,665	66,794
April	53,075	5,991	59,066
May	54,886	6,416	61,302
June	53,743	6,164	59,907
July	52,394	6,156	58,550
August	58,196	6,916	65,112
September	56,769	6,498	63,267
October	58,122	7,190	65,312
November	57,715	6,872	64,587
December	87,877	9,275	97,152
	703,584	80,860	784,444

The prescriptions are those issued by physicians, and the orders include orders of physicians (for office use), druggists, dentists, veterinarians, holders of manufacturers' permits, hospitals, churches, etc.

Manufacturers' Permits

These permits for use of alcohol and liquor for manufacturing purposes numbered 440.

Sales of Native Wine

The number of permits issued during the year was 41 as compared with 39 during the previous year.

Liquor Prescriptions by Doctors

The Board gladly acknowledges the continued co-operation of the great majority of physicians in the attempt to limit the liquor prescriptions issued by them to cases of actual medicinal need. The committee from the Ontario Medical Association, consisting of Dr. N. A. Powell, Dr. John Ferguson, and Dr. T. C. Routley, has performed throughout the year work of great service in dealing with the comparatively small number of physicians whose prescriptions exceed the maximum number allowed for one month.

The following tables furnish important information as to physicians' liquor prescriptions:

	Number Physicians	Percentage of all Physicians	Total Prescriptions	Individual Average
November, 1923.				
Non-Issuers	743	19.31	.....	.....
Issuing 1 to 25 prescriptions	2,173	56.47	19,749	9.09
" 26 " 50 "	860	22.35	33,976	39.50
" 51 " 75 "	72	1.87	3,878	53.86
" over 75 "	.....	.....	.....	.....
Total	3,848	100.00	57,603	14.97
December, 1923.				
Non-Issuers	559	14.48	.....	.....
Issuing 1 to 25 prescriptions	1,758	45.55	17,858	10.16
" 26 " 50 "	1,113	28.83	45,714	41.07
" 51 " 75 "	415	10.75	22,879	55.13
" over 75 "	15	.39	1,244	82.93
Total	3,860	100.00	87,695	22.72
January, 1924.				
Non-Issuers	711	18.50	.....	.....
Issuing 1 to 25 prescriptions	2,331	60.64	20,755	8.90
" 26 " 50 "	773	20.11	30,010	38.82
" 51 " 75 "	29	.75	1,534	52.89
" over 75 "	.....	.....	.....	.....
Total	3,844	100.00	52,299	13.60

The month of December shows the usual tendency to abnormal increase, as is seen by comparing the returns for that month with those for November and January.

It will be seen that in November three-fourths of the physicians of the Province kept within 25, the average of the whole group being slightly more than 9 each. During the same month only 72, or less than 2 per cent. of the whole, issued more than 50 prescriptions each.

During December the number issuing more than 50 prescriptions jumped from 72 up to 430, and in January this number fell to 29; that is, during the month of January the percentage of physicians issuing more than 50 per month fell to less than 1 per cent. While in December 15 physicians issued more than 75 each, in November and January no physician exceeded that number.

Druggists

A very considerable number of drug stores have been opened up in various parts of the Province, apparently for the purpose of carrying on an illegal traffic in liquor. These illegal traffickers are quite as objectionable to law abiding druggists as to other people. The task of enforcing the law against druggists is made difficult by the fact that every druggist is permitted to have liquor in his drug store. It would greatly facilitate the enforcement of the law if all druggists who sell intoxicating liquor were required to hold licenses authorizing such sales, and if ample powers were given to cancel any license for sufficient cause.

Medicated Wines

The sale of these wines for beverage purposes presents much difficulty. It may be safely said that in most cases the aim of those who supply these

wines is to cater to persons who desire an alcoholic beverage. The Province of Quebec has banned many of these wines, and better control over their distribution is necessary in this Province. Concerns which are not permitted to distribute their products in the Province of Quebec are persistently attempting to distribute the same products in Ontario.

Essences and Extracts

From time to time the sale of essences and extracts for beverage use gives trouble. The use for beverage purposes is quite limited, the conditions in this respect having improved.

Stills

Stills are discovered from time to time, and our officers continue to co-operate with Inland Revenue Officers in ridding the Province of them. The power to deal with stills belongs to the Dominion authorities, and our officers can act only by delegated power.

Brewers and Distillers

A few brewers and distillers continue to give trouble through pretended export. The whisky or beer is usually released from the distillery or brewery under the pretence that it is to be exported into a foreign country, and some of it is illegally distributed in Ontario.

There are also some breweries which occasionally sell strong beer directly to hotel-keepers and others.

Appeals for Clemency

There were 436 appeals for clemency considered during the last calendar year, and of these 194 received favourable consideration and 242 were refused.

Standard Hotel Licenses

The report this year contains a full list of the holders of Standard Hotel licenses. Care continues to be exercised in the inspection of all hotels, and the proprietors are encouraged to make their accommodation acceptable to the travelling public. The County Inspectors regularly inspect all the hotels within their respective jurisdictions, and two Provincial Inspectors exercise general supervision.

It is a matter of regret that Provincial Inspector W. K. Snider is severing his connection with the Board on account of having become entitled to superannuation. While rendering valuable service to the Province he earned the respect and confidence of hotel men everywhere. Provincial Inspector John Pitt, of Hamilton, has been appointed to the vacancy and is already rendering valuable service, in collaboration with Provincial Inspector S Bromley.

James Hales,
Chairman.

SCHEDULE A (1)

Statement showing number of prosecutions by Provincial Officers of cases for infractions of the Ontario Temperance Act for the year ending October 31, 1923.

License District.	Against Holders of Standard Hotel Licenses.		Against Non-Licensees.	
	No. of Convictions	No. of Dismissals	No. of Convictions	No. of Dismissals
Algoma	2	1	43	10
Brant and Haldimand (including City of Brantford)	2	.....	48	6
Bruce	.....	.....	43	4
Carleton (including Ottawa)	.....	.....	82	1
Cochrane	.....	.....	54	1
Dufferin, and part County Simcoe	.....	.....	16	10
Dundas and Stormont	.....	.....	82	11
Elgin (including St. Thomas)	.....	.....	56	2
Essex	.....	.....	57	5
Frontenac (including Kingston)	.....	.....	32	10
Glengarry	.....	.....	73	13
Grenville	.....	.....	32	5
Grey (including Owen Sound)	.....	.....	51	53
Halton	.....	.....	31	4
Hamilton	17	26	91	29
Hastings	.....	1	30	4
Huron	1	.....	66	9
Kent (including Chatham)	1	.....	39	2
Kenora	.....	.....	26	1
Lambton (including Sarnia)	2	2	52	8
Lanark	.....	.....	22	2
Leeds (including Brockville)	.....	.....	78	16
Lennox and Addington	.....	.....	49	6
Lincoln (including St. Catharines)	3	.....	39	6
Manitoulin (Canada Temperance Act)	.....	.....	20	2
Middlesex (including London)	.....	.....	23	7
Nipissing	.....	.....	55	5
Niagara Falls and part Welland (including City of Niagara Falls)	.....	.....	143	3
Norfolk	1	1	27	16
Northumberland and Durham	4	.....	50	7
Ontario	.....	.....	63	9
Oxford (including Woodstock)	.....	.....	15	5
Parry Sound	.....	.....	23	5
Peel	1	.....	19	2
Perth (including Stratford)	.....	.....	58	1
Peterborough (including City of Peterborough)	1	.....	26	11
Port Arthur and Fort William	1	.....	76	7
Prescott	1	.....	33	2
Prince Edward and part Hastings (including Belleville)	.....	.....	61	9
Rainy River	1	.....	28	5
Renfrew	.....	.....	46	16
Russell	.....	.....	23	10
Sault Ste. Marie	.....	.....	21	2
Simcoe and Muskoka	1	.....	66	11
Sudbury	1	.....	87	11
Temiskaming	.....	.....	212	12
Toronto	2	5	379	172
Victoria and Haliburton	1	.....	58	10
Waterloo (including Kitchener)	4	.....	100	35
Welland (including City of Welland)	.....	.....	99	11
Wellington (including City of Guelph)	1	.....	35	13

SCHEDULE A (1)—Continued.

License District.	Against Holders of Standard Hotel Licenses.		Against Non-Licensees.	
	No. of Convictions.	No. of Dismissals.	No of Convictions.	No. of Dismissals.
Wentworth	.....	.....	13	5
Windsor	3	2	123	38
York	.....	4	4	1
Totals	51	22	3,178	661
Totals, previous year	25	8	2,969	606

Included in the foregoing cases are 1,172 convictions and 105 dismissals under charges of being found in a public place in an intoxicated condition, as compared with 1,117 and 107 respectively, in the previous year.

SCHEDULE A (2)

Statement showing number of convictions and dismissals under charges of violations of the Canada Temperance Act during the year ending October 31st, 1923.

License District.	Convictions.	Dismissals.
Manitoulin	2	0
Total, previous report	1	1

SCHEDULE B

Statement showing amounts collected and payable to the Province for fines imposed under the Ontario Temperance Act, in each Ontario Temperance Act District, for the year ending October 31st, 1923.

	$ c.		$ c.
Algoma	3,525 00	Northumberland and Durham	3,200 00
Brant and Haldimand	6,900 00	Ontario	9,869 00
Bruce	5,400 00	Oxford	1,170 00
Carleton	15,136 86	Parry Sound	2,776 00
Cochrane	3,837 00	Peel	1,940 00
Dufferin and part of Simcoe	1,265 00	Perth	9,465 00
Dundas and Stormont	9,227 33	Peterborough	3,515 00
Elgin	2,205 00	Port Arthur and Fort William	12,804 00
Essex	7,041 12	Prescott	4,420 00
Frontenac	1,275 00	Prince Edward	5,295 00
Glengarry	8,805 00	Rainy River	4,865 00
Grenville	2,190 00	Renfrew	3,175 00
Grey	5,625 00	Russell	2,870 00
Halton	3,120 00	Sault Ste. Marie	4,260 00
Hamilton	24,770 00	Simcoe and Muskoka	5,356 50
Hastings	3,455 00	Sudbury	11,189 50
Huron	4,615 00	Temiskaming	10,898 00
Kent	3,845 00	Toronto	43,294 00
Kenora	2,070 00	Victoria and Haliburton	3,570 00
Lambton, East	100 00	Waterloo	30,581 00
Lambton	6,335 00	Welland	9,428 60
Lanark	1,620 00	Wellington	7,825 00
Leeds	5,761 40	Wentworth	2,140 00
Lennox and Addington	2,005 00	Windsor	16,780 00
Lincoln	7,710 00	York	1,650 00
Manitoulin	260 00		
Middlesex	7,190 00	Total	$379,509 31
Nipissing	10,244 00		
Niagara Falls	8,825 00	Total previous financial year	339,422 50
Norfolk	2,815 00		

SCHEDULE C

Statement showing expenses of enforcing Ontario Temperance Act in each Ontario Temperance Act District for the year ending 31st October, 1923.

	$ c.		$ c.
Algoma	1,645 98	Northumberland and Durham	928 01
Brant and Haldimand	2,070 09	Ontario	3,685 26
Bruce	1,852 08	Oxford	1,207 73
Carleton	3,700 00	Parry Sound	666 12
Cochrane	498 87	Peel	827 83
Dufferin and Simcoe	1,256 29	Perth	1,811 91
Dundas and Stormont	2,832 54	Peterborough	799 64
Elgin	1,070 06	Port Arthur and Fort William	1,266 01
Essex	2,887 79	Prescott	1,904 76
Frontenac	2,220 03	Prince Edward	2,879 45
Glengarry	2,394 92	Rainy River	3,317 87
Grenville	1,076 88	Renfrew	1,578 00
Grey	1,939 77	Russell	2,095 83
Halton	1,248 40	Sault Ste. Marie	297 99
Hamilton	5,573 65	Simcoe and Muskoka	2,357 58
Hastings	1,956 24	Sudbury	2,682 61
Huron	1,154 72	Temiskaming	1,394 62
Kent	1,353 09	Toronto	949 07
Kenora	1,254 92	Victoria and Haliburton	1,675 23
Lambton, East	114 42	Waterloo	3,544 98
Lambton	1,869 33	Welland	2,321 24
Lanark	1,853 29	Wellington	2,134 50
Leeds	3,674 51	Wentworth	624 40
Lennox and Addington	1,239 59	Windsor	7,263 78
Lincoln	1,133 77	York	491 04
Manitoulin	879 65		
Middlesex	1,876 58		$104,813 16
Nipissing	2,265 09	Salaries of Inspectors	83,093 18
Niagara Falls	1,364 62		
Norfolk	1,850 53		$187,906 34
		Total previous year	214,398 04

SCHEDULE D

Statement showing revenue from O. T. A Branch for the fiscal year ending 31st October, 1923.

	$ c.		$ c.
Native Wine Permits	5,400 00	Confiscated Liquor	71,649 58
Vendors' License Fees	15 00	Sundries	186 04
Standard Hotel Fees	8 00	Constables' Fees	12,559 27
Fines (O.T.A.)	359,345 80		
		Total	$449,163 69
		Total previous fiscal year	530,242 14

SCHEDULE E

Showing fines imposed under the Ontario Temperance Act, paid to the municipalities where special officers have been appointed under Section 120 of the Ontario Temperance Act, for the year ending 31st October, 1923.

	Nov. 1st, 1922 to Oct. 31st, 1923		Nov. 1st, 1922 to Oct. 31st, 1923
	$ c.		$ c.
Amherstburg	150 00	Deseronto	120 00
Arnprior	190 00	Dymond	.....
Aylmer	875 00	Englehart	45 00
Acton	105 00	Elmira	.....
Ailsa Craig	.....	Edwardsburg	.....
Alexandria	295 00	Elora	.....
Alliston	.....	Eastnor	.....
Brantford	6,065 00	Fort William	18,888 75
Bancroft	110 00	Ford City	3,900 00
Bowmanville	1,860 00	Fort Erie	434 80
Brighton	50 00	Fort Frances	985 00
Brockville	1,360 00	Freeman	.....
Blenheim	.....	Galt	935 00
Blenheim Town	470 00	Guelph	3,535 00
Belleville	3,053 51	Gananoque	425 00
Bradford	.....	Georgetown	257 90
Blind River	411 94	Gravenhurst	50 00
Burlington	2,655 00	Goderich	30 00
Burke's Falls	.....	Hamilton	8,900 00
Bridgeburg	.....	Hespeler	60 00
Barrie	727 50	Hagersville	34 90
Blandford	.....	Haileybury	240 00
Bayham	.....	Hanover	.....
Bothwell	.....	Hawkesbury	90 00
Beverley	.....	Hastings	250 00
Caldwell	300 00	Hepworth	.....
Crystal Beach	.....	Humberstone	.....
Capreol	1,000 00	Huntsville	230 00
Cobourg	826 00	Huron County	.....
Carleton Place	290 00	Ingersoll	950 00
Colborne	.....	Iroquois Falls	40 00
Cobalt	2,650 00	James Township	.....
Cochrane	4,626 00	Kenora	2,755 00
Courtright	.....	Kincardine	.....
Copper Cliff	3,130 00	Kitchener	4,210 00
Chapleau	40 00	Kingston	1,890 00
Campbellford	755 00	Kingston Township	200 00
Chesley	.....	Kent County	10,290 00
Cardinal	.....	Keewatin	.....
Charlton	.....	Kapuskasing	1,306 00
Coldwater	.....	Leamington	2,673 50
Chelmsford Town	.....	Lion's Head	20 00
Cornwall	2,055 00	Listowel	.....
Cayuga	.....	Lucknow	419 80
Collingwood	180 00	London	13,335 00
Cannington	.....	Lucan	70 00
Chatham	1,400 00	Lanark Village	.....
Clifford	.....	Lakefield	.....
Crowland	4,165 00	Lindsay	310 00
Calvert	3,800 00	McDougall Township	.....
Chapman	.....	Mattawa	325 00
Coleman	.....	Midland	200 00
Cache Bay	590 00	Madoc	30 00
Dunnville	.....	Massey	.....
Dresden	60 00	Merritton	60 00
Dutton	.....	Meaford	.....
Drury, Dennison and Graham	.....	Matheson	30 00
Dundas	90 00	Milton	392 00
Dryden	550 00	Mount Forest	460 00

SCHEDULE E.—Continued

	Nov. 1st, 1922 to Oct. 31st, 1923		Nov. 1st, 1922 to Oct. 31st, 1923
	$ c.		$ c.
Magnetawan	.....	Sault Ste. Marie	25,557 50
North Bay	8,280 00	Sturgeon Falls	3,101 00
Niagara Falls	2,860 00	Sarnia	3,430 00
Napanee	.....	Sudbury	11,605 00
Niagara Town	70 00	St. Catharines	14,760 00
New Liskeard	579 80	St. Thomas	3,855 00
Nepean	.....	Smith's Falls	860 00
Neustadt	.....	Stratford	2,825 00
Neelon and Garson	845 00	Simcoe	50 00
Norwood	.....	St. Vincent	.....
Newmarket	.....	Sandwich	1,380 00
Norwich, North	.....	Sherbrooke Township	.....
Norwich Village	.....	Sioux Lookout	480 00
Nipigon	1,160 00	St. Mary's	20 00
Ottawa	9,100 00	Stamford Township	.....
Orangeville	60 00	Southampton	65 00
Oshawa	3,730 00	Teck Township	4,665 38
Oakland Township	.....	Toronto	102,625 00
Owen Sound	1,966 00	Tillsonburg	10 00
Oxford, West, Township	.....	Trenton	3,045 00
Oakville	.....	Tisdale Township	7,606 00
Port Arthur	20,126 75	Timmins	12,584 00
Preston	602 50	Thamesville	.....
Picton	900 00	Thessalon	20 00
Pakenham	.....	Thorold Town	3,445 00
Paris	100 00	Thorold Township	1,335 80
Parry Sound	870 00	Tavistock	.....
Port Hope	150 00	Uxbridge	.....
Peterborough	3,355 00	Vankleek Hill	235 00
Pembroke	1,155 00	Woodstock	1,530 00
Petrolia	160 00	Walkerville	2,368 00
Perth	130 00	Woodhouse	.....
Portsmouth	.....	Wallaceburg	1,175 00
Port Perry	25 00	Wiarton	95 00
Port Stanley	.....	Welland Town	2,085 00
Prescott	10 00	Windsor	10,930 00
Parkhill	.....	Walkerton	265 00
Paisley	.....	Waterloo Town	610 00
Port Colborne	4,705 00	West Zorra	.....
Port Rowan	.....	Whitby	470 00
Point Edward	.....	Winchester	.....
Penetanguishene	341 50	West Lorne	.....
Port McNicoll	.....	Webbwood	.....
Pelee Township	50 00	York County	4,245 00
Renfrew Town	630 00	Zorra, East	.....
Rainy River	.....		
Rayside Township	.....	Total	$414,776 33
Ridgetown	220 00		
Schreiber	1,000 00	Total previous report	364,925 80
Seaforth	.....		

SCHEDULE F

Statement showing the number of Standard Hotels licensed under Section 146 in each Ontario Temperance Act District for the year ending 31st October, 1923.

Algoma	8	Ontario	15
Brant and Haldimand	19	Ottawa City	23
Bruce	45	Oxford	22
Carleton	4	Parry Sound	17
Dufferin and part Simcoe	20	Peel	14
Dundas and Stormont	21	Perth	22
Elgin	22	Peterborough	24
Essex (excluding Windsor)	10	Port Arthur and Fort William	12
Frontenac	34	Prescott	24
Glengarry	8	Prince Edward and Hastings (including Belleville)	27
Grenville	8	Rainy River	10
Grey	35	Renfrew	33
Halton	15	Russell	21
Hamilton	43	Sault Ste. Marie	8
Hastings	17	Simcoe and Muskoka	71
Huron	28	Sudbury	18
Kenora	7	Temiskaming	21
Kent	23	Toronto	87
Lambton	36	Victoria and Haliburton	22
Lanark	25	Waterloo	41
Leeds	22	Welland (including all but river municipalities)	11
Lennox and Addington	16	Wellington (including Guelph)	28
Lincoln	19	Wentworth	15
Middlesex (including London)	40	Windsor	15
Niagara Falls (including river municipalities)	17	York	28
Nipissing	13		
Norfolk	25		
Northumberland and Durham	43	Total	1,252

SCHEDULE G—ONTARIO TEMPERANCE ACT INSPECTORS

License District.	Inspector.	P. O. Address.
Algoma	Jas. Grigg	Bruce Mines.
Brant and Haldimand	R. J. Eacrett	Brantford.
Bruce	J. M. White	Walkerton.
Carleton	Howard Graham	Ottawa.
Cochrane	T. H. Constable (acting)	Cochrane.
Dufferin	T. J. Robinson	Orangeville.
Dundas and Stormont	E. P. Foster	Morrisburg.
Elgin	Walter Ross	St. Thomas.
Essex	L. W. Roach (acting)	Leamington.
Frontenac	Wm. McCammon	Kingston.
Glengarry	F. Wetherall, P.C. (acting)	Cornwall.
Grenville	Chas. Plumb (acting)	Prescott.
Grey	M. C. Beckett	Owen Sound.
Halton	R. Reevely (acting)	Brampton.
Hamilton	Wm. McCready (acting)	Hamilton.
Hastings	W. T. Nugent	Madoc.
Huron	W. T. Pellow	Goderich.
Kent	M. Side	Chatham.
Kenora	W. J. Parfitt (acting)	Keewatin.
Lambton East	F. A. Jennings	Thedford.
Lambton West	F. S. Elliott	Sarnia.
Lanark	J. J. McGregor	Carleton Place.
Leeds	F. B. Taber	Brockville.
Lennox and Addington	W. S. Exley	Napanee.
Lincoln	J. W. King	St. Catharines.
Manitoulin	Wm. Vincer	Mindemoya.
Middlesex	W. Bolton	London.
Nipissing	J. Gagne, P.O. (acting)	North Bay.
Niagara Falls	C. F. Airey, D. Insp. (acting)	Niagara Falls.
Norfolk	R. Edmonds	Simcoe.
Northumberland and Durham	G. Goodrich	Cobourg.
Ontario	C. A. Mason	Oshawa.
Oxford	M. J. Breckenridge (acting)	Woodstock.
Parry Sound	A. R. Knight, P.C. (acting)	Parry Sound.
Peel	R. Reevely	Brampton.
Perth	M. H. Moore (acting)	Listowel.
Peterborough	J. Stewart	Peterborough.
Port Arthur and Fort William	W. Lougheed, D. Insp. (acting)	Port Arthur.
Prescott	A. DeHaitre	L'Orignal.
Prince Edward	F. J. Naphan	Belleville.
Rainy River		
Renfrew	D. Silvester	Renfrew.
Russell	A. G. Sykes	Ottawa.
Sault Ste. Marie	P. Walter	Sault Ste. Marie.
Simcoe and Muskoka	J. R. Reid	Orillia.
Sudbury	T. N. Kilpatrick	Sudbury.
Temiskaming	W. S. Blackwall P. Insp.(acting)	Haileybury.
Toronto	A. A. Montgomery	Toronto.
Victoria and Haliburton	Wm. Thornbury	Lindsay.
Waterloo	E. Zinkann	Kitchener.
Welland	G. A. Ekins	Welland.
Wellington	J. A. Grant	Guelph.
Wentworth	W. W. Forsythe	Dundas.
Windsor	M. N. Mousseau	Windsor.
York	D. MacKenzie	Woodbridge.

SCHEDULE I.

A Table comparing commitments for ALL OFFENCES and for DRUNKENNESS alone for the two years, 1914 and 1923.

Location of Gaol.	Total commitments for all offences.		Percentage of decrease in total commitments.	Total commitments for drunkenness.		Percentage of decrease in total commitments for drunkenness.
	1914	1923		1914	1923	
Barrie	332	102		140	5	
Belleville	371	250		63	2	
Brantford	272	121		108	40	
Brampton	42	63		2	7	
Brockville	184	97		62	9	
Bracebridge	61	21		4	2	
Cayuga	69	39		5		
Cornwall	105	107		27	16	
Cobourg	130	70		36	3	
Chatham	271	215		83	16	
Fort Frances	345	124		149	0	
Goderich	70	51		6	6	
Guelph	102	74		16	9	
Gore Bay	22	11				
Hamilton	1,438	749		603	192	
Kingston	206	93		129	26	
Kitchener	226	166		48	3	
Kenora	91	56		19	3	
London	911	542		500	187	
Lindsay	62	35		9	3	
L'Orignal	16	21		2	2	
Milton	388	121		12		
Napanee	95	50		45	5	
North Bay	390	367		93	40	
Ottawa	1,351	636		346	78	
Owen Sound	90	124		17	3	
Orangeville	28	29		1		
Perth	138	52		22	2	
Picton	59	38		32	17	
Pembroke	132	58		50	5	
Peterboro'	389	113		143	14	
Port Arthur	1,120	453		444	153	
Parry Sound	258	134		55	14	
Simcoe	117	62		32	6	
St. Catharines	310	223		102	62	
Sarnia	395	170		237	35	
Stratford	179	109		73	7	
Sandwich	336	595		44	92	
St. Thomas	162	122		48	17	
S. S. Marie	364	281		73	102	
Sudbury	2,651	962		1,643	297	
Toronto	7,524	5,575		3,073	1,828	
Walkerton	47	38		4	1	
Woodstock	227	92		77	18	
Welland	432	330		131	72	
Whitby	98	130		17	6	
LOCK-UPS.						
Atikokan, Byng Inlet, Cobalt, Mine Centre, Webbwood	171	113		23	75	
	22,777	13,984	34.21	8,848	3,482	60.64

SCHEDULE J.

LIST OF STANDARD HOTELS AS IN MARCH, 1924.

(These Licenses expire October 31, 1924.)

ALGOMA DISTRICT

BLIND RIVER.
American—J. B. Chenier.
Blind River—Geo. Gauthier.
Hamonic—R. J. Inkster.
Ottawa—A. Berthelette.
DEAN LAKE.
Huronic—Wm. J. Beharriell.
DESBARATS,
Belvedere—R. H. Robinson.
SPANISH STATION,
Huron—J. O. Beauchamp.
THESSALON:
Heffernan—Mrs. J. G. McCartney.
Royal—Wm. H. Wickett.
WEBBWOOD:
Windsor—F. A. VanNorman.

BRANT AND HALDIMAND

BRANTFORD:
Art Tavern—Jno. Milton.
Belmont—Wm. Fraser.
Benwell—Jno. Powers.
Kerby—W. H. Littlefield.
St. Julien—Alex. Paterson.
Strand—Jno. O'Riley.
BURFORD:
Cornish—Thos. H. Dunn.
CALEDONIA:
Exchange—B. O'Rourke.
Union—Jno. J. Beckerson.
CANFIELD:
Exchange—L. N. Mehlenbacher.
CAYUGA:
Mansion—A. S. Drybrough.
DUNNVILLE:
Farmers—Jas. Price.
Savoy—Mrs. Katharine Edgar.
PARIS:
Arlington—Miss Helen M. Ealand.
ST. GEORGE:
Commercial—Jno. E. McTavish.

BRUCE.

AMBERLEY:
Blue Water—Mrs. Elizabeth Brady.
CARGILL:
Power—Jos. H. Mosack.
CARLSRUHE:
British—Henry Halter.
CHEPSTOW:
King Edward—Mrs. Lena Fleming.
CHESLEY:
MacDonald—Mrs. P. Schumacher.
COLPOY'S BAY:
Forest Home—Jas. Cunningham.
ELMWOOD:
Queen's—Fred Stade.
FORMOSA:
Commercial—Anthony Schnurr.
Formosa—Anthony Opperman.
HEPWORTH:
Royal—Jno. W. Harris.
KINCARDINE:
Morgan—Mrs. Sadie Morgan.
Royal—Mrs. Adeline Brick.
Walker—Mrs. L. Walker.
LION'S HEAD:
Williams—Chas. Williams.
LUCKNOW:
Cain—Thos. F. Cane.
MILDMAY:
Commercial—Albert E. Schmalz.
Station—Mrs. C. Schnurr.
PAISLEY:
Balmoral—Wm. H. Rudolph.
Grand Central—Chester Lee.
PORT ELGIN:
Arlington—Wm. Baker.
Queen's—Jas. E. Marsh.
RIPLEY:
Commercial—A. Williams and R. H. Harris.
Royal—Thos. H. Wilson.
RIVERDALE:
Riverdale—Mrs. S. Valad.
SOUTHAMPTON:
Commercial—Mrs. F. Hepburn.
TARA:
Queen's—Jno. Rudolph.
TEESWATER:
Grand Union—Isadore Weiss.
Vendome—Alex. Lambertus.
TIVERTON:
Mansion—Roy Wm. Siddon.
UNDERWOOD:
Underwood—Hugh McLean.
WALKERTON:
Central—L. Gibson and McArthur.
Hartley—Jno. Korman.
Queen's—Mrs. Catherine Vogt.
Royal—Mrs. Pauline Klempp.
Walker—Robt. Walker.
WIARTON:
Arlington—Robt. Lowry.
Pacific—Henry Stumpf.

CARLETON.

EASTVIEW:
Eastview—Anatole Delorme.
NORTH GOWER:
McCurdy—Jos. McCurdy.
OTTAWA:
Albion—A. M. Lafromboise.
Alexandra, Bank St.—S. Brouse.
American, 143 Duke St.—Mrs. A. St. Louis.
Bodega, Wellington St.—P. P. Salter.
Capital, 61-63 Murray St.—Chas. Emard.
Castor, 449-451-453 Sussex St.—E. Chevrier.
Cecil, 226 Sparks St.—Geo. E. Jewell.
Chateau Laurier, Playa St.—Angus Gordon.
Couillard, 95 Duke St.—J. B. Couillard.
Cyr, 21-23 Murray St.—Elie Cyr.
Dominion, 42 York St.—R. H. Elliott.
Farmers, 30 York St.—B. Boyd.
Grand Central, 555 Sussex St.—J. Morrissette.
King Edward, 599 Sussex St.—L. Lavigne.
New Wellington, 322 Queen St.—J. H. Lafreniere.
Osgoode Hall, 28 Nicholas St.—D. Laviolette.
Pacific, 173 Broad St.—Oliva Ranger.
Russell, 26 Sparks St.—H. L. Maley.
Sirdar, 191 Rideau St.—Mrs. A. St. Louis.
Victoria, 34-40 Murray St.—A. D'Amour.
Windsor, 35-45 Metcalfe St.—M. F. Hart.

COCHRANE.

ANSONVILLE:
Paris—W. Jim.
COCHRANE:
King George—Mike Dobenko.
Stevens—Arthur Stevens.
Union—Louis and Alex. Masse.
TIMMINS:
Goldfields—H. A. Morin.
Kingston—Jno. Mannion.
Prince of Wales—Won Wing Wee.

DUFFERIN.

ALLISTON:
Dominion—Jas. Henderson.
Windsor—M. F. Bolger.
ANGUS:
Dominion—H. Smith.
BEETON:
Commercial—Mrs. W. J. Warne.
BONDHEAD:
Bondhead—Jno. Sutherland.
BRADFORD:
Queen's—G. and H. Lang.
COOKSTOWN:
Queen's—Mrs. W. J., Coulter.
Travellers' Inn—Edwin Lewis.
CORBETTON:
Corbetton—James Isaac.
EVERETT:
Dufferin—Robert Lemon.
GRAND VALLEY:
Commercial—S. S. Stuckey.
Grand Central—George Swain.
LEFROY:
Lefroy—Mrs. A. S. Nesbitt.
LORETTO:
Loretto—S. J. Barrie.
ORANGEVILLE:
American—Albert McGrath.
Dufferin—Lewis Moffi't.
Grand Central—Miss W. Bennett.
Queen's—Wm. Savage.
ROSEMOUNT:
Globe—J. F Law.
SHELBURNE:
Primrose—Jas. Dean.
THORNTON:
Queen's—L. M. Stewart.
TOTTENHAM:
Maple Leaf—Michael McDermott.

DUNDAS AND STORMONT.

AULTSVILLE:
River View—J. Sheets.
AVONMORE:
Grand Union—T. McBride.
CHESTERVILLE:
Flynn—Thos. Flynn.
McCloskey—F. McCloskey.
CORNWALL:
Carleton—R. Runions.
King George—J. Duquette.
Maple Leaf—Geo. E. Prieur.
New Windsor—A. Laplante.
CRYSLER:
New Commercial—A. Varin.
FINCH:
Dominion—J. A. Robinson.
HALLVILLE:
Hallville—A. Rose.
IROQUOIS:
Grand Central—T. J. Johnston.
MILLE ROCHES:
Albion—M. McGillivray.
MOOSE CREEK:
Canada Atlantic—Wm. Brunet.
Central—F. Brunet.
MORRISBURG:
St. Lawrence Hall—L. Southworth.
Windsor—H. Onderkirk.
MOUNTAIN:
Foster—E. Foster.
WALES:
Connelley—Mrs. J. Shields.
WILLIAMSBURG:
Dominion—J. D. Becksted.
WINCHESTER:
Winchester—G. F. Mowat.

ELGIN.

AYLMER:
Brown—Jas. P. Hevey.
Central—C. A. Brooke.
DUTTON:
McIntyre—Chas. Dubrick.
Queen's—Geo. Vowel.
FINGAL:
Fulton—Mrs. C. Cameron.
PORT STANLEY:
Gilmour—Jas. A. Gilmour.
RODNEY:
Royal—Fred. C. McGregor.
ST. THOMAS:
Empire—J. D. Lamont.
Grand Central—Wm. A. McDougall.
International—Alex. McDonald.
Iroquois—Wm. Chas. Homister.
Park House, Edgar Saunders.
Park View—Jno. F. Casey.
Talbot—Conley Bros.
Wabash—Thos. Finney.
Western—J. A. Cridland.
SPRINGFIELD:
White—Thos. White.
STRAFFORDVILLE:
Grant—Wm. Grant.
VIENNA:
Stilwell—L. Stevens.
WEST LORNE:
Argyle—J. A. Gilbert.

ESSEX.

BELLE RIVER:
Belle River—C. J. Parent.
COMBER:
King George—T. J. Innes.
ESSEX:
Aberdeen—W. F. Stotts.
Grand Central—W. C. Neuendorf.
HARROW:
Commercial—Wm. Harnett.
Renaud—Mrs. Renaud.
KINGSVILLE:
King's—A. J. Hall.

FRONTENAC.

ARDEN:
Empire Hotel—C. M. Green.
BATTERSEA:
Granite—S. J. Lake.
Loughborough View—K. VanLuven.
VanLuven—L. VanLuven.

CLARENDON:
Clarendon—R. Burke.
CLOYNE:
Wickware—Mrs. F. Drysdale.
INVERARY:
Inverary—T. McWaters.
KINGSTON:
Anglo-American—E. S. Webster.
British-American—M. Bohan.
Carleton—M. J. Kane.
Frontenac—Jas. A. Hughes.
Lake View—P. Driscoll.
Plaza—Mrs. E. K. Johnson.
Prince George—A. E. Fitton.
Queen's—M. Berrigan.
Randolph—J. Fournier.
Royal—P. McKenna.
MOUNTAIN GROVE:
Loyst—Mrs. C. Loyst.
OMPAH:
Trout Lake—Chas. Dunham.
PARHAM:
Bertram—W. D. Bertram.
SHARBOT LAKE:
Hill Crest Inn—G. M. Drew.
Union—H. Sergeant.
SYDENHAM:
American—J. M. Woodruff.
Union—E. R. Martin.
TICHBORNE:
Tichborne—C. B. Clobridge.
VERONA:
Albion—Geo. F. Fair.
Union—Mrs. Asseltine (Jessie).
WOLFE ISLAND:
Hitchcock—Allan McLaren.
Island—M. V. Johnson.

GLENGARRY.

ALEXANDRIA:
Alexandria—Jules Delage.
Ottawa—E. Rouleau.
APPLE HILL:
King Edward—Wm. Lalonde.
GLEN ROBERTSON:
General—N. Geneau.
Union—N. Geneau.
LANCASTER:
Commercial—J. Dufresne.
MARTINTOWN:
Commercial—J. E. McNamara.
MAXVILLE:
King George—D. Duperron.
STANLEY ISLAND:
Algonquin—J. N. Duquette.

GRENVILLE.

CARDINAL:
Dillon—Mrs. D. M. Dillon.
KEMPTVILLE.
Kerr—D. O'Neil.
McPherson—Allen and Robertson.
MERRICKVILLE:
City—Geo. R. Louis.
N. AUGUSTA:
Davis—H. Seeley.
PRESCOTT:
Daniels—B. H. Cochrane.
Queen Alexandra—E. T. Horan.
SPENCERVILLE:
Spencerville—Harold Adams.

GREY.

AYTON:
Commercial—Thos. Doersan.
Royal—Jas. Kenna.
CEYLON:
McLachlan's—D. D. McLachlan.
CHATSWORTH:
Campbell—M. E. Galbraith.
CLARKSBURG:
Beaver Valley—H. M. Henderson.
DESBORO:
Desboro—Jas. Fitzpatrick.
DUNDALK:
Grand Central—Michael Bulger.
Queen's—Chas. Maxwell.
DURHAM:
Central—M. McGrath.
Hahn—J. Oscar Hahn.
EUGENIA:
Eugenia—Peter Munshaw
FEVERSHAM:
Thornbury—T. E. Thornbury.
FLESHERTON:
Munshaw—Geo. B. Welton.
Park—A. B. Ferris.
HANOVER:
Hanover—Louis Rousseau.
Queen's—Leo R. Francis.
HOLLAND CENTRE:
Queen's—Harvey Givens.
MAXWELL:
Maxwell—Mrs. Sarah Guy.
MEAFORD:
Paul's—Gus A. Paul.
NEUSTADT:
Commercial—Wm. Becker.
Station—Mrs. Adeline Hehn.
OWEN SOUND:
Comley—Wm. Gardhouse.
King George—S. Leach.
Paterson—Clarence Douglas and Geo. Marron.
Queen's—Albert Boddy.
Royal—Miss E. Gladstone.
Seldon—Miss Winnie Doyle.
PRICEVILLE:
Commercial—A. J. McVicar.
SINGHAMPTON:
Exchange—Hugh McKenny.
THORNBURY:
Revere—Taylor and Gibbons.
St. George—J. W. Ferris.
WILLIAMSFORD—
Williamsford—Fred Stafford.

HALTON.

ACTON:
Station—Samuel M. Lasby.
Sunderland—Dan V. Ritchie.
BURLINGTON:
Brant Inn—M. Finnegan.
Freeman—Mrs. Mary Baker.
Queen's—R. D. Smith.
Raymond—Mrs. W. D. McKay.
CAMPBELLVILLE:
Village Inn—W. K. Ferguson.
GEORGETOWN:
McGibbon—S. H. McGibbon.
Railroad Exchange—Harry Wright.
MILTON:
Commercial—Jas. Kennedy.
Milton Inn—Mrs. J. McGibbon.

OAKVILLE:
Gibson—Ross M. Gibson.
Murray—M. H. Williams.
PALERMO:
Roadside Inn—J. E. Lucas.

HAMILTON.

HAMILTON:
Armory, 193 James St. N.—Mrs. M. Delory.
Athletic, Market Sq.—Jos. J. Murphy.
Bayview, 81 Stuart St.—Peter Sabourin.
Beaver, 94 McNabb St.—Chas. Parkin.
Cecil, 113 James St. S.—George Dean.
Central, 240 King St. E.—Dan P. Campbell.
City, 127 Stuart St.—Ed. A. Condon.
Coronation, 76 John St. S.—Walter Willison.
Court, 63 John St. S.—Horace Harvey.
Dog & Gun, 295 York St.—Mrs. A. N. Moore.
Dominion, 82 King St. W.—Jno. G. Meiler.
Grand Opera, 1 Gore St.—Jno. Lynch.
Hanrahan, 92 Barton St. E.—Mrs. M. Hanrahan.
International, 309 James St.—M. Hayes, Jr.
Jockey Club, 1087 Barton St.—D. McCormick.
Kelly's Inn, 59-61 McNabb St.—Jno. Doyle.
King George, 27 McNabb St.—H. E. Oakes.
Mansion, 279-281 King St.—Thos. M. Power.
Metropole, 29 John St. N.—Richard Baird.
Modjeska, 554 James St. W.—Jno. J. Murphy.
Murray, 362 Barton St. E.—Geo. L. Thompson.
New Commercial, cor. York and Park Sts.—Mrs. G. A. Tossy.
Northern, 380 James St. N.—J. S. Golden.
Regal, King and Bay Sts.—Dan Smith.
Royal Connaught, King St.—A. E. Carter.
Royal Oak, 125-127 Bay St. N.—Mrs. Mary Dornan.
Savoy, 32 Barton St. E.—R. G. Hanel.
Stroud, Merrick St.—Stroud Estate.
T. H. & B., 32 Hunter St. E.—Geo. Hibberd.
Terminal, 180 King St. E.—Mrs. M. M. Mullen.
Wellington, cor. Cannon and Wellington Sts., P. J. Donohue.
Wentworth Arms, 38 Hughson St.—Chas. J. H. Munro.
Wilson, 388 York St.—S. Wilson.
Venice, 372 Sherman Ave. N.—Paul Olivieri.

HASTINGS.

BANCROFT:
Bancroft—Mrs. Ellen Kennedy.
Queen's—Jno. Labarge.
COE HILL:
Sexsmith—Tobias Sexsmith.
ELDORADO:
Eldorado—Ed. Wannamaker.
MADOC:
Moon—David Haslip.
St. Lawrence—Thos. F. Blue.
MARLBANK:
O. K.—D. Irvine Wells.
MARMORA:
Royal—A. T. Neal.
St. James—Thos. E. Potts.
MAYNOOTH:
Arlington—Mrs. A. Smith.
STIRLING:
Stirling—W. J. Whitty.
STOCO:
Ontario—Mrs. Margaret Cournoyea.
TWEED:
Huyck—Wm. O'Keefe.

HURON.

AUBURN:
Auburn—F. Carter.
BAYFIELD:
Albion—H. R. McKay.
Commercial—Edgar Weston.
Ritz—Mrs. Martha Ritz.
BLYTH:
Commercial—Elta Johnson.
BRUSSELS:
American—Walter A. Lowry.
Queen's—E. A. Dixon.
CENTRALIA:
Dufferin—Wm. Moffatt.
CLINTON:
Graham—Jno. H. Dorsey.
Normandie-Rattenbury—S. S. Cooper.
CREDITION:
Central—Ed. Fahner.
DASHWOOD:
Commercial—Wm. Zimmer.
ETHEL:
Royal—Wm. J. Gill.
EXETER:
Central—W. T. Acheson.
Metropolitan—Wm. Mitchell.
GODERICH:
Bedford—E. J. Sutcliffe and H. P. Warrener.
British Exchange—Wing Chu.
Union—Walter J. Lannan.
GORRIE:
Anglo-American—Robert F. White.
GRAND BEND:
Brenner—Ezra Brenner.
HENSALL:
New Commercial—Jno. Young.
SEAFORTH:
Commercial—Chas. Dungey.
Queen's—Thos. J. Stephens.
WALTON:
Walton—Fred. J. Miller.
WINGHAM:
Brunswick—Harvey W. Shane.
Queen's—Andrew Taylor.
WROXETER:
Gofton—Geo. J. Town.
ZURICH:
Walper—Casper Walper.

KENORA.

DRYDEN:
Dryden—C. O. Self.
KENORA:
Dalmore—J. Sauerbrei.
Ottawa—B. McKay.
Tourist—A. Hutchinson.
KEEWATIN:
Bay City—B. Rochon.
The Miller's Lodge—P. R. Sutton.
NORMAN:
Norman—O. Dumouchel.

KENT.

BLENHEIM:
Cadillac—S. R. Carvolth.

BOTHWELL:
Central—W. B. Curtis.
CHATHAM:
Aberdeen—F. T. Marshall.
C.P.R.—G. C. McKellar and Jas. Doherty.
Glassford—Tim Donovan.
Merrill—Jno. T. Dunlop.
New Garner—Jno. B. Kerr.
Rankin—Jno. Pleasence.
Sanita—Arch. Park.
Tecumseh—J. H. O'Rourke.
DRESDEN:
Queen's—Chas. A. Nixon.
ERIEAU:
Lake View—Sam Galbraith.
MERLIN:
Marquis—Chas. E. Fischer.
RIDGETOWN:
Arlington—Wm. M. Merrifield.
TILBURY:
Empire—Barnaby Ballard.
THAMESVILLE:
Tecumseh—Milton Campbell.
WALLACEBURG:
Arlington—Wm. H. Quennell.
Dupont—Jas. P. Callaghan.
Montreal—Jas. and Chas. Gatzke.
WHEATLEY:
Commercial—Arthur Poulter.

LAMBTON.

ALVINSTON:
Columbia—H. L. Binder.
Grand Central—Wm. A. McLean.
Revere—Fred. W. Benner.
ARKONA:
Queen's—Thos. Grogan.
BRIGDEN:
Balmoral—Mrs. Clara Spooner.
CAMLACHIE:
D. Needham—Mrs. Jas. H. Needham.
FLORENCE:
Florence—Wm. Lindsay.
FOREST:
Franklin—Wm. Benjamin.
GRAND BEND:
Imperial—Bruce Bossenberry.
INWOOD:
Glasgow—Mrs. Mary Thompson.
OIL SPRINGS:
Commercial—Ed. Regan.
Oxford—Archie Barnes.
PETROLIA:
Fletcher—Ed. D. Fletcher.
Tecumseh—Alex. Bedard.
POINT EDWARD:
Balmoral—Mrs Mary Muirhead.
Queen's—Rob. Whitty.
PORT FRANKS:
Waverley—Geo. Dyer-Hurdon.
PORT LAMBTON:
Grand Central—G. Webster Dawson.
Washington—Chas. A. Sharpe.
SARNIA:
Arlington—Mrs. N. Kidd.
Chapman—Geo. Flesher.
Colonial—J. F. Morrison.
Mansion—Mrs. E. J. McBride.
St. Clair—Jno. D. Miller.
Vendome—Wm. A. Pollock.
Western—Frank Robinson.
SOMBRA:
Grand Union—Hugh Montgomery.
St. Clair—J. H. Washburn.
THEDFORD:
Holwell—Jos. Desjardine.
WARWICK:
Warwick—S. Smith.
WATFORD:
Roche—Thos. Roche.
Watford Inn—I. Cantelon.
WYOMING:
Commercial—Alex. Scharf.
Wyoming—F. Fenwich.

LANARK.

ALMONTE:
Almonte—J. B. Teevens.
CARLETON PLACE:
Central—J. Robitaille.
Leland—Leo. Doyle.
Mississippi—W. C. McIlquham.
Queen's—Frank Chadwick.
CLAYTON:
Clayton—David Tender.
FERGUSON FALLS:
Dickinson—Wm. Dickinson.
LANARK:
Clyde—J. N. Dobbie.
Victoria—Mrs. E. F. Jones.
LAVANT STATION:
Lavant—J. A. Cox.
MABERLY:
Fall River—H. W. Erwin.
PERTH:
Hicks—W. J. Glascott.
Imperial—F. A. Lambert.
Revere—P. J. Kehoe.
PAKENHAM:
Commercial—Wm. Towey.
Sheehan—Mrs. A. Mooney.
SMITH'S FALLS:
Palliser—M. Balfe.
Rideau—Chas. O'Reilly.
Russell—W. E. Earle.

LEEDS.

BROCKVILLE:
Commercial—J. Archinal.
Centennial—R. J. Bennett.
Garbutt—E. R. Ashley.
Grand Central—McAuley & Powers.
Revere—R. Johnston.
DELTA:
Beverley—P. J. McParland.
GANANOQUE:
Brophy—Mrs. B. Shiels.
International—W. F. Stevens.
Provincial—N. McCarney.
JASPER:
Connor—T. E. Connor.
JONES FALLS:
Kenney—J. A. Kenney.
LYNDHURST:
Riverside—G. W. Cheetham.
NEWBORO:
Ontario—Ed. S. Landon.
PORTLAND:
Commercial—Ernest Bell.
ROCKPORT:
Island View—R. H. Service.
TOLEDO:
Commercial—P. J. Quigley.

WESTPORT:
Alhambra—T. J. McCann.

LENNOX AND ADDINGTON.

BATH:
Bay View—N. Rikley.
CAMDEN EAST:
Dominion—S. Brien.
COLEBROOK:
Colebrook—Clare E. Hartman.
FLINTON:
Stewart—Jos. Yanch.
KALADAR:
Latonia—H. E. Saul.
NAPANEE:
Campbell—Mrs. J. S. Gilmore.
Paisley—B. H. Cochrane.
Queen's—J. F. Wheeler.
Royal—Luffman & Roney.
NEWBURGH:
Newburgh—J. F. Detlor.
ODESSA:
Dominion—S. J. Sproule.
STELLA:
Royal—Hugh Glenn.
TAMWORTH:
Queen's—Jno. F. Baker.
Wheeler—Ed. Schoolcraft.

LINCOLN.

BEAMSVILLE:
Commercial—Wm. Cosmos.
GRIMSBY:
Grimsby—Mrs. S. E. McCartney.
Grimsby Village Inn—Napoleon Servais.
JORDAN:
Jordan Inn—Wm. Markey.
NIAGARA:
Lake View—Frank Addison.
Niagara—Pat. Jos. O'Neil.
NIAGARA-ON-THE-LAKE:
American—Mrs. H. M. Berge.
PORT DALHOUSIE:
Austin—Jno. Harrigan.
Lincoln—Sam. Houston.
ST. CATHARINES:
Imperial—J. Thos. Cleverly.
Lincoln—W. H. Brown.
Mansion—Chas. McPherson.
New Murray—E. Garbet and J. Cooper.
Russell—J. F. Quinn.
St. Catharines—Wm. C. Ryckman.
Welland—A. H. Malcolmson.
SMITHVILLE:
Commercial—Chas. L. Adams.

MANITOULIN.

KILLARNEY:
Killarney—Mrs. Victoria McDonald.

MIDDLESEX.

AILSA CRAIG:
Munroe—A. W. Munroe.
APPIN:
Commercial—E. Cushman.
BELMONT:
Belmont—A. A. Clunas.
CRUMLIN:
Central—M. Young.
DORCHESTER:
Donnybrook Inn—Jno. Robinson.
GLENCOE:
McKellar—Fred. Loosemore.
ILDERTON:
King Edward—Sam Stinchcombe.
KERWOOD:
O'Neil—G. E. Chittick.
LAMBETH:
Longwood Inn—H. J. Carroll.
LOBO:
Lobo—W. Arrand.
LONDON:
Barnes—Chas. Prestwich.
Belvedere—W. S. Lashbrook.
Bodega—Jno. McInnes.
Brunswick—J. Collins.
C.P.R.—S. H. P. Towell.
Clarendon—Arthur Sadlier.
Empire—Frank McLean.
Grigg—M. C. Walsh.
Homister—H. N. Watson.
Iroquois—Jeremiah McDonald.
Park—Geo. L. Price.
Richmond—W. L. Cook.
St. John's—Michael Judge (R.R. No. 2)
Savoy—Alex. Ferguson.
Tecumseh—G. H. O'Neil.
Walper—E. Walper.
LUCAN:
Central—M. McFalls.
MELBOURNE:
Melbourne—G. S. Bees.
MT. BRYDGES:
Commercial—Fisher Bros.
NEWBURY:
Commercial—B. F. Jeffery.
PARK HILL:
Arlington—N. E. MacKinnon.
Schafer—A. S. Bossenbery.
STRATHROY:
Alexander—Jas. Alexander.
Empire—Judson A. Brett.
Queen's—Ed. Upton.
THORNDALE:
Central—D. W. E. Hough.
WARDSVILLE:
Commercial—J. Wilson.

NIAGARA FALLS.

BRIDGEBURG:
Barnea—Robt. Beattie.
CRYSTAL BEACH:
Lincoln—E. A. Buck.
FORT ERIE:
Anglo-American—W. E. Hunt.
NIAGARA FALLS:
Lafayette—Harry Williams.
Niagara—C. W. Campaigne.
Prospect—Jno. E. Ward.
Queen's—F. L. Asbury.
Rosli—A. Malouf.
Savoy—Frank B. Crane.
The Inn—Howard A. Fox.
Trennick—H. C. Newman.
Windsor—W. C. McAllister.
RIDGEWAY:
McLeod—Percy A. Rice.
Queen's—Albert White.
STEVENSVILLE:
Stevensville—Ed. J. Hawkins.

NIPISSING.

ASTORVILLE:
Rochefort—Fred. Rochefort.
BONFIELD:
Ottawa—Noe Corbeil.
FIELD:
Field—Adelard Barrette.
MADAWASKA:
C.P.R. Station—Canada Ry. News Co., Ltd. (W. G. Greer.)
MATTAWA:
Mattawa—Alex. Emond.
Royal—Hector Morel.
Victoria—K. MacKechnie.
NORTH BAY:
King George—Louis Gauvin.
Pacific—Chas. W. F. Brown.
Queen's—Harry Shepherd.
Mackey—Frank Demarco.
STURGEON FALLS:
Kirkup—Richard Boyce Kirkup.
Queen's—A. J. Dompierre & Son.
Windsor—Chas. Soucie.
VERNER:
Commercial—Paul Cote.

NORFOLK AND HALDIMAND.

COURTLAND:
Courtland—J. B. Judson.
DELHI:
Pick—R. Pick.
Stoddard—A. L. Bond.
FISHERVILLE:
Erie—W. E. Benner.
HAGERSVILLE:
Alward—S. Alward.
Commercial—W. H. Walsh.
NELLES' CORNERS:
Dominion—P. P. Reichheld.
JARVIS:
American—R. A. Nelles.
Commercial—Frank Ross.
PORT DOVER:
Commercial—Mrs. H. Henderson.
Norfolk—C. E. Gamble.
PORT ROWAN:
St. Charles—C. E. Smith.
ST. WILLIAMS:
Palace—A. Guenther.
SELKIRK:
Union—J. C. Dougher.
SIMCOE:
Battersby—L. Brady.
Melbourne—W. S. McCall.
Norfolk—Mrs. J. A. Cox.
Queen's—Elmer Ramey.
WALSH:
Walsh—G. E. Smith.
WALSINGHAM:
Foster—W. E. Foster.
WATERFORD:
Caldwell—Mrs. F. Caldwell.
Teeter—C. A. Smith.
WINDHAM CENTRE:
Royal—M. Hyndman.

NORTHUMBERLAND AND DURHAM.

BEWDLEY:
Kennedy—W. W. Kennedy.
Lake View—J. R. Campbell.
Rice Lake Inn—W. E. Purdy.
BOWMANVILLE:
Balmoral—A. J. Wadham.
Bowman—Chas. Dickinson.
BRIGHTON:
Clarendon—D. C. Harrison.
CAMPBELLCROFT:
Webber—Jas. Webber.
CAMPBELLFORD:
Queen's—Henry Coveny.
St. Lawrence—Jas. A. Kerr.
Windsor—J. T. Blute.
CASTLETON:
Union—A. Wolfraim.
COBOURG:
Albion—A. F. Wilkinson.
Balmoral—Wm. A. F. Stringer.
Baltimore—Jno. Cauley.
British—T. H. Kingsley.
Dunham—Thos. Green.
St. Lawrence—Jos. Harrison.
COLBORNE:
Alexandra—R. M. Reid.
Brunswick—J. F. Wolfraim.
GORE'S LANDING:
Rice Lake—A. E. Harris.
GRAFTON:
Mansion—G. W. Chatterson.
HARWOOD:
Lake View—J. J. Gillman.
Trent Valley—M. A. Lukes.
HASTINGS:
Clarendon—Jas. Cowan.
Royal—J. F. Jones.
MILLBROOK:
Commercial—J. W. Hutchinson.
Queen's—Miss Laura Crocker.
NEWCASTLE:
Oriental—Mrs. Rhea Gray.
ORONO:
North American—W. F. Rolph.
PONTYPOOL:
Latonia—Wm. Rennie.
PORT HOPE:
Ontario—Alice Bosheff.
Queen's—Frank Keeler.
Royal—C. L. Britton.
PRESQU'ILE POINT:
Presqu'Ile—G. Quick.
TRENT RIVER:
Sedgwick—J. J. Sedgwick.
TUNNICLIFF:
Tunnicliff—G. G. Vanallen.
WARKWORTH:
Leonard—Jas. Condon.

ONTARIO.

BEAVERTON:
Ontario—F. J. Suter.
Wayside—Mrs. W. R. Way.
BROOKLIN:
Brooklin Inn—Mrs. G. Johns.
CANNINGTON:
Queen's—J. H. Robinson.
OSHAWA:
Central—Wm. J. Oliver.
Commercial—Elgin Caughey.
PICKERING:
Gordon—Mrs. S. M. Gordon.
PORT PERRY:
Sebert—R. J. Weir.

SUNDERLAND:
Sunderland Standard—Wm. H. Pangman.
UDORA:
Udora—Mrs. E. A. Gordon.
UXBRIDGE:
Mansion—Robt. St. John.
WHITBY:
Royal—A. Rousseau.
Whitby—L. S. Bandel.

OXFORD.

BRIGHT:
Arlington—Jas. Elliott.
BROWNSVILLE:
Brownsville—A. L. Leighfield.
Tecumseh—Ross E. Cook.
DRUMBO:
Royal Inn—W. H. Haines.
EMBRO:
Albion—Daniel Beagley.
INGERSOLL:
Atlantic—Frank Deecker.
Ingersoll Inn—J. E. Rawson.
McMurray—Mrs. Lottie McMurray.
Oxford—D. Bruce.
OTTERVILLE:
Revere—Wilson Young.
NORWICH:
Norwich Inn—Mrs. A. G. Smith.
PRINCETON:
Dake—E. C. Howes.
TAVISTOCK:
Arlington—Chas. Dietz.
Oxford—Estate F. Liebler.
THAMESFORD:
Balmoral—A. J. Blakie.
TILLSONBURG:
Arlington—Robt. A. Craise.
New Imperial—J. A. Service.
Royal—Rob. B. Moulton.
WOODSTOCK:
New Commercial—Jas. Jno. Brunker.
Oxford—R. H. Reid.
Royal—Wm. Farrell.

PARRY SOUND.

BURK'S FALLS:
Central—Jas. Bowie.
CALLANDER:
Pacific—Jas. Carlino.
DEPOT HARBOUR:
Island—F. Anderson.
KEARNEY:
Ottawa—L. V. Brennan.
NOVAR:
Queen's—Alex. Cowden.
PARRY SOUND:
Kipling—A. J. O'Neill.
Mansion—C. W. Thompson.
POWASSAN:
New Windsor—H. Lalonde.
Temperance—Jno. Ibbitson.
SCOTIA JUNCTION:
Albion—J. B. McBride.
SUNDRIDGE:
Bernard—N. A. McCaskill.
SOUTH RIVER:
New Queen's—G. F. Brennan.
SPRUCEDALE:
Sprucedale—C. O. C. Farrell.
TROUT CREEK:
Carr—Seth Cowden.
Queen's—A. E. Pells.

PEEL.

ALTON:
Palmer—J. J. Palmer.
BOLTON:
Queen's—Floyd Henderson.
BRAMPTON:
Queen's—R. D. Robson.
Royal—R. Robson.
Victoria—Geo. McTaggart.
CALEDON:
Sutton—Mrs. W. J. Sutton.
CALEDON EAST:
Albion—Mary Haviland.
INGLEWOOD:
Wilkinson—J. J. Robbins.
MONO ROAD:
Queen's—M. Stonehouse.
PALGRAVE:
Elm Tree—W. A. Irwin.
PORT CREDIT:
Lakeview—Mrs. Inez Curry.

PERTH.

DUBLIN:
Dominion—P. M. Judge.
LISTOWEL:
New Queen's—Mrs. Edna Irwin.
MILLBANK:
Rob Roy—Mrs. R. Mulcahy.
MILVERTON:
Grand Central—Wm. H. Knight.
MITCHELL:
Colli on—Peter C. Longeway.
Hicks—Robt. Davidson.
Royal—S. Collins.
MONKTON:
West Monkton—E. H. Schroeder.
ROSTOCK:
Queen's—Wm. Leasa.
ST. MARY'S:
Garnett—Oddy Bros.
Royal Edward—J. A. McLaren.
Windsor—Mrs. M. E. Constable.
SHAKESPEARE:
Shakespeare—J. Wagner.
STRATFORD:
Crown—Headley Cook.
Empire—D. J. Gardner.
Mansion—J. H. Miller.
Queen's—T. Pinkney.
Windsor—T. J. Gillespie.
STRATFORD, R.R. No. 1:
Royal—Ed. Dahmer.

PETERBOROUGH.

APSLEY:
Union—J. Coones.
BUCKHORN:
Buckhorn—M. Eastwood.
BURLEIGH FALLS:
Park—H. W. Darcy.
GLEN ALDA:
Lake View House—Ed. McCaskie.
HALL'S BRIDGE:
Windsor—J. E. White.
HAVELOCK:
Armstrong—C. Armstrong.
LAKEFIELD:
Commercial—M. H. Peacock.
Lakefield—A. G. Lawless.
NORWOOD:
Darlings—A. P. Darling.
King's Hotel—O. R. Edwards.

PETERBOROUGH:
Albion—Ed. Hogan.
American—C. Perry.
Empress—G. N. Graham.
Grand—W. Fisher.
King's—D. N. King.
Maple Leaf—Geo. Lipsett.
Montgomery—F. Montgomery.
Montreal—E. A. Griffin.
Munro—Mrs. B. B. Munro.
White—A. White.
Windsor—A. T. Johnston.
YOUNG'S POINT:
Carlton—Wm. McFarlane.
Lakeview—Mrs. J. A. Kearney.

PORT ARTHUR AND FORT WILLIAM.

FORT WILLIAM:
Adanac—Fred Paju.
Avenue—Jas. McCranor.
Queen's—Gust. Anderson.
Simpson—Mike Nezinsky.
Victoria—C. W. Forester.
West—Jas. A. Black.
NIPIGON:
Nipigon—Jas. Dawson Ovens.
PORT ARTHUR:
Canadian Northern—I. A. Erikkila.
Kimberley—Godfrid Burstrom.
Mariaggi—Max Hurtig.
New Ontario—Mrs. M. M. Arthur.
Prince Arthur—J. Van Wyck.
Waverley—Mrs. Mary Reid.
STANLEY:
Park—Mrs. Alma Halgren.

PRESCOTT.

ALFRED:
Prescott—Jos. Houle.
Tourist—Jos. Miron.
ALFRED STATION:
C.P.R.—Mrs. F. Paquette.
CALEDONIA SPRINGS:
Central—A. Siguin.
CHUTE A BLONDEAU:
Central—Wm. St. Amand.
CURRAN:
Commercial—N. Lalonde.
FOURNIER:
Commercial—Z. Robert.
HAWKESBURY:
King Edward—Chas. Farmer.
Royal—Jos. Hurtebise.
L'ORIGNAL:
Ottawa—D. Schetagne.
MCALPINE:
Victoria Hotel—Jos. St. Denis.
PENDLETON:
Pendleton—Eugene Lalonde.
PLANTAGENET:
Commercial—Mrs. M. Gauthier.
King George—H. A. Shane.
STE. ANNE DE PRESCOTT:
Grand Central—X. Vachon.
ST. EUGENE:
Queen's—Mrs. A. E. Villeneauve.
Windsor—Jos. Perrier.
ST. ISADORE DE PRESCOTT:
Commercial—W. Leger.
VANKLEEK HILL:
Grand Central—Jos. St. Denis.
Windsor—Jos. St. Denis.
WENDOVER:
Wendover—D. Larose.

PRINCE EDWARD AND HASTINGS

BELLEVILLE:
Belvidere—F. Allore.
City—E. Naylor and H. Johnson.
Crystal—Harold D. Bateman.
Docter's—Mrs. Anne N. Docter.
New Queen's—T. P. J. Power.
Quinte—J. V. Jenkins.
Windsor—Chas. F. Robinson.
CONSECON:
Hillcrest—Alden Ferguson.
DESERONTO:
Arlington—Alex. E. Stormes.
Stewart—Thos. A. Stewart.
FRANKFORD:
Brennan—W. J. Lyons.
MARYSVILLE:
Marysville—J. J. Fahey.
PICTON:
Globe—Wm. H. Vanalstine.
Royal—Fred. E. Healy.
SHANNONVILLE:
Albion—Jno. A. McDonald.
TRENTON:
Gilbert—Wm. A. Bleeker.
Grand Union—Albert A. Farrar.
Quinte—Thos. H. Orrill.
St. James—Ed. J. Sweet.
WELLINGTON:
Lakeview Inn—Jno. H. Parliament.

RAINY RIVER.

BARWICK:
Roseberry—Robt. Jas. McGauly.
FORT FRANCES:
Emperor—Jas. Harty.
Fort Frances—Jas. Paul.
Monarch—A. N. Tibbetts.
Palace—Jacob Mohr.
Prince Albert—Chas. Burnett.
MINE CENTRE:
Vermilion—Thos. Laprade.
RAINY RIVER:
Canadian Northern—Mrs. Kate Desorcy.
STRATTON:
New Ontario—Jos. Doree.

RENFREW.

ARNPRIOR:
Commercial—Mrs. H. Martineau.
Dajenais—Jean B. Cloutier.
New Byrne—Jno. R. Byrne.
BARRY'S BAY:
Balmoral—Jos. B. Billings.
Windsor—Mrs. Margaret Drohan.
BEACHBURG:
Union—Harry G. Condie.
COMBERMERE:
Hudson—E. Estate Hudson.
O'Brien—Mrs. Matilda O'Brien.
CALABOGIE:
Legree—Mrs. Jennie Hayward.
COBDEN:
Grand Union—Albert E. Jackson.
McCoy—Jas. G. Mallard.

DOUGLAS:
Minto—Michael Neville.
EGANVILLE:
Central—Mrs. Hanna J. Foy.
Ottawa—Con. McElligott.
KILLALOE:
Beresford—Michael Billings.
OSCEOLA:
King George—Jno. Donegan.
PEMBROKE:
Copeland—E. J. Moxley.
Leland—M. J. Needham.
Mackay—Theodore Landriault.
Pembroke—Jno. B. Teevens.
Windsor—Melion Cecile.
PETAWAWA:
Petawawa—Eugene Giesbrecht.
QUADEVILLE:
O'Brien—Jno. O'Brien.
RENFREW:
British—Delorme Bedore.
Dominion—J. M. George.
Exchange—Mrs. Jno. Dunbar.
Ottawa—Arthur Gravelle.
Renfrew—J. E. Colson.
ROCKINGHAM:
Rockingham—Michael Hartney.
WESTMEATH:
Acheson—Ernest Thibeault.
WILNO:
Exchange—Frank Shulise.

RUSSELL.

BOURGET:
C. P. R.—Mrs. Marcel Belanger.
Royal—J. L. Morin.
CARLSBAD SPRINGS:
Carlsbad Springs—Mrs. Hannah Johnson.
CASSELMAN:
New Commercial—Jos. Huneault.
CLARENCE CREEK:
Du Peuple—Paul Brunet.
Union—A. H. Desrosiers.
CUMBERLAND:
Cumberland—M. T. Watson.
EMBRUN:
Standard—A. Debonville.
HAMMOND:
Junction—Alfred Gendron.
LEONARD:
Leonard—Jno. Shane.
MANOTICK:
McCaffrey—Jno. McCaffrey.
METCALFE:
Metcalfe—W. J. Gillissie.
ORLEANS:
Orleans—S. Pariseau.
ROCKLAND:
Rockland—Jno. Tague.
ROCKLAND, EAST:
Russell—F. X. Menard.
RUSSELL:
Commercial—D. P. Gormley.
ST. ALBERT:
Russell—Jean Ouimet.
SARSFIELD:
Sarsfield—D. Raymond.
SOUTH INDIAN:
Royal—Emery Savage.

SAULT STE. MARIE.

SAULT STE. MARIE:
Algoma—Fred Breton.
Algonquin—Edgar Read.
Grand View—W. O'Brien.
New Ontario—Nick Dominick.
New Windsor—J. S. Miller.
Royal—Chas. E. Keenan.
Windsor Annex—Jno. S. Miller.

SIMCOE AND MUSKOKA.

BALA:
New Windsor—Wm. McDivitt.
BARRIE:
American Hotel—Gilbert S. Webb.
Arlington—G. Cripps.
Classic—Ed. Hollinger.
Simcoe Hotel—Verner S. Hambly.
Wellington—Wm. H. Kennedy.
BRECHIN:
Victoria—Michael J. Cleary.
COLDWATER:
Coldwater—Rol. Gilchrist.
COLLINGWOOD:
Arlington—Ulerich Muller.
Globe—Mrs. J. Rowland.
CREEMORE:
Matchett—Ed. A. Gilpin.
Sovereign Hotel—Jos. Fred. Pedler.
ELMVALE:
Dominion—Frank P. Hayes.
Grand Central—Robt. Booth.
Queen's—Walter Telfer.
GRAVENHURST:
Albion—Mary Wasley.
Gilmour—Mrs. J. F. Gilmour.
Red Gables Hotel—S. C. Kerrigan.
HONEY HARBOUR:
Royal Hotel—Grise Bros., Limited.
HUNTSVILLE:
Dominion—Thos. Simmons.
Kent—J. C. Blake.
Vernon—The Muskoka Wood Mfg. Co., Ltd.
MIDLAND:
American—Geo. Jackson.
Queen's—Miss Margretta Lyne.
MINETT:
Clevelands—Seymour A. Minett.
NEW LOWELL:
Markle—Mrs. L. Markle.
ORILLIA:
Orillia—Jos. White.
Palmer—N. W. and Wm. A. Quibell.
Royal—P. F. Milne.
PENETANG:
Canada—Mrs. Jos. Cloutier.
PORT CARLING:
Port Carling—Geo. Cannell.
PORT SEVERN:
Bayview Hotel—Mrs. Bessie Hurl.
PORT STANTON:
Lake Shore House—Mrs. Martha Stanton.
SEVERN BRIDGE:
Peninsula Farm—Charlotte Bennett.
SPARROW LAKE:
Grandview Hotel—Otto Roehll.
Lakeview—Anthony Miller.
Wiancko House—H. W. Wiancko.

STAYNER:
Seymour—J. W. Seymour.
Wilcox Inn—Geo. Wilcox.
UTTERSON:
Commercial Hotel—Patrick Clarke.
WASAGA BEACH:
Capstan Inn—Hugh W. McLean.
WASHAGO:
Northern—Cyril A. Muir.
WAUBAUSHENE:
Holland Hotel—Tracy W. Holland.
Lakeview—Mrs. Dina Campbell.
WYEBRIDGE:
Temperance—Henry J. Howard.
WYEVALE:
Maple Leaf—Chas. A. Nicol.

SUDBURY.

BLEZARD VALLEY:
Blezard—Mrs. T. Cayen.
CHAPLEAU:
Algoma—J. D. Auclair.
CHELMSFORD:
Algoma—Ferdinand Perras.
ESPANOLA:
Espanola—David Alexander.
HANMER:
Hanmer—O. Tremblay.
MARKSTAY:
Markstay—D. J. Finlan.
SUDBURY:
Balmoral—Mrs. T. Morin.
Eagle—Mrs. Olga Erikson.
King Edward—Chris. Johnson.
Montreal—Archie St. Cartier.
New American—Arthur H. Raby.
New Queen's—W. H. Riddell.
Nickel Range—Nickel Range Co.
Sudbury—Aug. Enquist.
WARREN:
Globe—Max Robichaud.
Imperial—J. F. Giroux.
WHITEFISH:
Penage—W. A. Hunter.

TIMISKAMING.

EARLTON:
Cecil—Mrs. E. Boivin.
ENGLEHART:
Commercial—G. Cooley.
Station Restaurant—D. W. Porter.
KIRKLAND LAKE:
Royal Hotel—Wallace & Kelly.
NEW LISKEARD:
Grand Union—J. L. Beecher.

TORONTO.

TORONTO:
Aberdeen—114 Queen St. W., Jno. W. Lowry.
Adelaide—127 Simcoe St., Chas. H. Young.
Alexandra—102 Queen St. W., Thos. O'Connor.
Arlington—336 King St. W., Arthur C. Budd.
Benlamond—656 Kingston Rd., Mrs. R. M. Harris.
Beresford—250 Queen St. E., Mrs. A. McDonald.
Broadview—702 Queen St. E., A. D. Simon.
Brockton Club—1553 Dundas St. W., W. L. Redpath.
Brunswick—481 Bloor St. W., Jno. E. Mullett.
Bulmer's—Ward's Island, Miss J. M. Glass.
Cameron—408 Queen St. W., Thos. F. Meegan.
Canada—134 Sherbourne St., Jno. Chadwick.
Carls Rite—174 Front St. W., H. McCarthy.
Casino—11 Moncton Rd., Centre Isl., Fred. Reed Cinn.
Cecil—1150 Queen St. W., Geo. Englert.
Chippewa—240 Queen St. W., Ed. S. Fitzguard.
Claremont—732-734 Queen St. W., Arthur Wales.
Clifton—298 Queen St. W., S. J. Vogan.
Clyde—158 King St. E., Arthur C. Budd.
Daly—175 Front St. W., Chas. C. Clark.
Dominion—500 Queen St. E., A. Shore.
Duke of Connaught—460 Queen St. W., Jno. Cox.
Duke of York—1227 Queen St. E., Geo. Chisholm.
Edwin—Queen St. E., Jno. Burns.
Elliott—Church and Shuter Sts., Fred. C. Rocke.
Empress—339 Yonge St., Richard Dissette.
Empringham—2763 Danforth Ave., J. C. Ward.
Exchange—99-101 King St. E., Wm. P. Flanigan.
Florence—30 King St. W., Wm. A. Tee.
Genesee—180 King St. W., Robert Fenn.
Gerrard—399 Parliament St., Nicholas Gorman.
Gibson—140 Queen St. E., Chas. Thompson.
Gladstone—1214 Queen St. W., T. W. Slattery.
Grand Central—57 Simcoe St., A. A. Van Praagh.
Imperial—144 King St. W., Jas. Goodwin.
Iroquois—141 King St. W., W. F. Currie
Iroquois—Centre Island, Angelina Dancey.
Isabella—556 Sherbourne St., Wm. C. Schultz.
King Edward—King St. E., Geo. O'Neil.
Lansdowne—1744-6 Dundas St., Fred M. Ryan.
Lavender—Kingston Rd., Thos. J. Elward.
Lennox—831 Yonge St., Wm. Robinson.
MacFarlane—99 Jarvis St., Alex. MacFarlane.
Manitou—25 Manitou Rd., Centre Island, O. Spanner.
Marlborough—214 Jarvis St., Geo. B. Foster.
Mossop—56 Yonge St., B. C. Hines.
National—249 King St. E., Hugh Logan.
Nealon—197 King St. E., Thos. Duffy.
New Windsor—124 Church St., G. E. Frezell.
Occidental—211 Mavety St., Mrs. M. Salmon.
Oriental Hotel—Mrs. Margaret Johnston. (new management) 393 King Street East.
O'Rourke—508 Eastern Ave., T. H. O'Rourke.
Palace—952 King St. W., Mrs. Margaret Leonard.
Parkdale—Queen St., Harold E. McDonald.
Parkview—935 Queen St. W., Jno. W. Sedore.
Peacock—2649 Dundas St. W., W. D. Campbell.
Prince George—91 York St., E. W. Thompson.
Prince of Wales—421 King St. W., W. Brownlee.
Queen's—78-92 Front St. W., Henry Winnett.
Rex—194-6 Queen St. W., J. Garfunkel.
Ritz—8 Terauley St., Wm. H. Badgley.
Ritz—418 Bay St., Mrs. M. MacTaggart.
Rosedale—1147 Yonge St., J. J. Bruder.
Royal Canadian—Front and George Sts., J. J. Meagher.

Royal Edward—375 Queen St. W., C. H. Hartman.
Royal Oak—278 Dundas St.E., A. E. Meechan.
Rupert—344 Queen St. E., Claude McFarline.
St. Lawrence—29-31 Jarvis St., H. E. Walsh.
St. Regis—392 Sherbourne St., Chas. E. Storey.
Savoy—York St., J. H. Lynch.
Scholes—203 Yonge St., J. L. and L. F. Scholes.
Selby—592 Sherbourne St., L. H. Luke.
Shamrock—491 Gerrard St. E., F. C. Gavin.
Simcoe—205 Queen St., J. J. Fitzpatrick.
Somerset—434 Church St., Philip Davey.
Spadina—King and Spadina, Frank Blaylock.
Strathcona—York St., Stephen Michael.
Subway—410-12 Keele St., Mrs. E. Guy.
Walker—York and Front Sts., Geo. Wright.
Waverley—482 Spadina Ave., E. R. Powell.
Westminster—240 Jarvis St., T. J. Harrocks.
Wheat Sheaf—King and Bathurst Sts., D. A. Stormont.
Winchester—Winchester and Parliament, Geo. Roe.
York—187 King St. E., F. J. B. Curtis.

VICTORIA AND HALIBURTON.

BOBCAYGEON:
Rockland—Geo. Potts.
COBOCONK:
Pattie—Geo. Ed. Jackson.
DORSET:
Narrows—T. J. Woods.
FENELON FALLS:
Brookes—Henry Brookes.
Kawartha—Jas. T. Smith.
Mansion—Jos. Jacque.
McArthur—Jno. Aldous.
GOODERHAM:
Union—Alfred Dane.
HALIBURTON:
Grand Central—R. J. H. Lucas.
KINMOUNT:
Simpson Home—Mrs. C. A. Simpson.
LINDSAY:
Benson—Burns & Lonergan.
Central—Daniel Hogan.
Elsmure—F. W. Sutcliffe.
Grand Union—Miss Mabel Wardrobe.
Royal—Jos. H. McConnell.
MINDEN:
Dominion—Geo. Sears.
OAKWOOD:
Oakwood—Jno. Barry.
OMEMEE:
Commercial—Richard Morton.
VICTORIA ROAD:
Victoria—Jno. McNaney.
WOODVILLE:
Woodville—Samuel Ainsworth.

WATERLOO.

AYR:
Queen's—E. Courtney.
BADEN:
Baden—J. W. Stiefelmeyer.
Central—C. F. Witte.
BLOOMINGDALE:
Bloomingdale—Chas. Hummel.
BRIDGEPORT:
Bridge—J. R. Boettinger.
Lancaster—Herman Wagner.
CONESTOGO:
Schweitzer's—J. W. Schweitzer.
ELMIRA:
Ontario—Casper Mogk.
Steddick—Jno. Steddick.
GALT:
Albion—J. A. Patrick.
Iroquois—Geo. Bernhardt.
New Royal—L. B. Culver.
Overland—J. A. White.
HESPELER:
Commercial—Fred Wright.
Queen's—H. Sachs.
KITCHENER:
Grand Union—A. O. Wismer.
Steppler—H. R. Steppler.
LINWOOD:
King Edward—P. Lenhard.
Philip's—P. Kreutzwusser.
LISTOWEL, R. R. No. 3:
Dorking—J. E. Rosger.
NEW DUNDEE:
New Dundee—Mrs. Catharine Mayer.
NEW GERMANY:
Commercial—Chas. Halter.
St. Boniface—Theo. Zimmerman.
NEW HAMBURG:
Commercial—E. Grundenberger.
Imperial—J. A. Rumig.
King Edward—F. J. Hartman.
PETERSBURG:
Petersburg—Chas. Knapp.
PRESTON:
Central—Church and Revitzer.
Commercial—C. Sachs.
Kress—W. F. Kress.
ST. AGATHA:
Exchange—N. S. Ball.
Travellers' Home—Mrs. C. Kaiser.
ST. CLEMENTS:
St. Clements—Peter Veidenheimer.
ST. JACOBS:
Dominion—L. Hollinger.
WATERLOO:
City—J. Schnitzler.
Commercial—J. W. Raisig.
WEISENBURG:
Weisenburg—Alfred Hummel.
WINTERBOURNE:
Winterbourne—M. Brohman.

WELLAND.

HUMBERSTONE:
Humberstone—Mrs. A. L. Deterling.
Western—Mrs. M. B. McFarland.
PORT COLBORNE:
American—Elvin H. Boneberg.
Maple Leaf—Jno. Rae.
Queen's—Mrs. R. Zielski.
THOROLD:
Summit—C. R. Martin.
Welland—Edward P. Doyle.
WELLAND:
Commercial—C. W. Anderson.
Dexter—Fred. Garbutt.
New Welland—Wm. Riddell.
Reeta—S. L. Lambert.
Station—Mrs. F. Kilgour.

WELLINGTON.

ARISS:
Ontario—Louis Roth.
ARTHUR:
Commercial—Mrs. W. H. Heppler.
Queen's—M. J. Hefferman.
Royal—S. Andrews.
CLIFFORD:
Mansion Inn—Jno. Kruspe.
DRAYTON:
Magnesium Springs—R. G. McFarren.
ELORA:
Iroquois—A. E. Fitzpatrick.
FERGUS:
Fergus Inn—Edgar Blakley.
Murphy—Mrs. M. Atkinson.
Wellington—Bert Sargent.
GUELPH:
Albion—Mrs. M. P. Thompson.
City—B. J. Doyle.
Fountain—Chas. Gillespie.
King Edward—L. N. Sider.
New Wellington—E. B. Clancey.
Royal—R. P. Gollop.
HARRISTON:
Collison—Mrs. A. Collison.
Royal—D. M. Fischer.
HILLSBURG:
Exchange—Mrs. E. Dwyer.
MOOREFIELD:
Moorefield—Jas. Thompson.
MORRISTON:
Morriston—Jno. Westlake.
MOUNT FOREST:
Belmont—M. J. Collins.
Empress—C. E. Holland.
Grand Central—D. Cummins.
PALMERSTON:
Hess—Chas. Dopper.
Queen's—Canada Railway News Co., Ltd.

WENTWORTH.

ANCASTER:
Guest's Inn—Wm. Guest.
BURLINGTON BEACH:
Depew—Geo. A. Depew.
Lakeside—Mrs. Delia Perry.
DUNDAS:
Collins—Jas. Howe.
Melbourne—Harry W. Surerus.
FREELTON:
Central—Patrick Kehoe.
LYNDEN:
Central—Mrs. Ethel M. Rous.
MOUNT HOPE:
Standard—Geo. McClemont.
ROCKTON:
Rockton—A. Blakely.
STONEY CREEK:
Stoney Creek—Edgar Millington.
WATERDOWN:
American—Wm. N. Fleetham.
Kirk—Jno. H. Kirk.

WINDSOR.

PETITE COTE:
Willington—Chas. H. Diesburg.
TECUMSEH:
Bedell's—Wm. Bedell.
British American—Jos. B. Renaud.
WINDSOR:
British American—E. E. Ingram.
Crawford—Mrs. Bessie Hallet.
Elliott—Daniel Elliott.
Essex—J. Frank Woolcott.
Exchange—A. C. Berryman.
Grand Central—Jas. H. Green.
King George—F. R. Thomson and A. C. Berryman.
Munro—Mrs. Bertha B. Munro.
Prince Edward—J. B. Foote.
Royal—Adolphus Filion.
Stephen's—Chas. F. Stephen.
Union—Andrew C. McIntyre.
Walker—Wm. Geo. Smith.
Wellington—Mrs. Anna Janisse.
West Side—Ed. J. Marentette.
Windsor—Arthur Gignac.
Woodbine—Jos. Pratt.
Wyandotte—F. P. Lalande.

YORK.

AGINCOURT:
Agincourt—Jos. Page.
AURORA:
Queen's—Mrs. M. S. Phillips.
The Club—Mrs. R. Baldwin.
BELHAVEN:
Belhaven—Wm. H. Smith.
BRADFORD:
Peek Inn—A. P. Martin.
ELGIN MILLS:
Elgin Mills—Mrs. E. Bridges.
JACKSON'S POINT:
Lakeview—H. W. and A. B. Sanders.
KING:
Metropolitan—F. Armstrong.
KLEINBURG:
Kleinburg—Jas. Harris.
MAPLE:
Jones—Robert Jones.
MARKHAM:
Franklin—R. A. Andrews.
Tremont—Frank Latter.
MIMICO:
Windsor—Mrs. C. Swain.
MOUNT ALBERT:
Commercial—H. S. Foote.
NEWMARKET:
King George—Geo. H. Brown.
NEW TORONTO:
Arrow Inn—T. P. Whitlam.
OAK RIDGES:
Thompson's—Jno. Thompson.
O'SULLIVAN'S CORNERS:
Parker's Inn—Chas. E. Parker.
PEFFERLAW:
Belvedere—Edward Sypher.
RICHMOND HILL:
Richmond—Ezra Grant.
SUTTON:
Mansion—Jas. Graham.
UNIONVILLE:
Queen's—Findlay Bros.
WESTON:
Central—Miss M. S. Smith.
Gray Dort—A. V. Devins.
WOODBRIDGE:
Woodbridge—Frank Wismer.
YORK MILLS:
York Mills—D. B. Birrell.

SCHEDULE K

Native Wineries—List of holders of native wine certificates from the Board, under Section 46 Ontario Temperance Act, valid until October 31st, 1924.

No.	Name	Address	Gals. Capacity
80	Louis Lenardon	Fort William	7,000
81	Peter Belluz	Fort William	3,000
82	Nicholas Rizzo & Son	Hamilton	4,000
83	Alex. Thomas (Cooksville Wine V.)	Cooksville	2,500
84	Beamsville Winery (D. DePetro (H. Tufford)	Beamsville	3,000
85	Samuel Badalato	London	2,500 to 3,000
86	Francois Lamotte	Windsor	9,000
87	Carl Luelo	Kitchener	3,000
88	Clovis Robinet	Sandwich	5,500
89	Victor Robinet	Sandwich	3,000
90	A. R. DeConza & Son	St. Catharines	20,000
91	Carlo Rossoni	Windsor	9,000
92	F. L. Furminger	St. Catharines	8,000
93	Alex. Greco	Sault Ste. Marie	4,000
94	Jules Robinet (John Borio)	Sandwich	25,000
95	Luigi Meconi, Mariano Meconi	Windsor	4,000
96	Dominion Wine Growers, Limited	Oakville	100,000
97	Rabbi Jacob Gordon	Toronto	700
98	John Tantardini	Guelph	2,000 to 2,500
99	T. C. Hagaman	Oakville	6,000
100	Ontario Grape Growing & Wine Mfg. Co., Ltd.	St. Catharines	400,000
101	Mac. Dolcetti	Port Arthur	3,500
102	Giovanni Paparoni	Welland	1,200
103	Guisseppe Cazzola	Windsor	3,500
104	Antonio Nero	Welland	400
105	T. G. Bright & Co., Limited	Niagara Falls	400,000
106	Leopold Roumegous	Cooksville	1,500
107	Rabbi M. H. Levy	Toronto	2,000
108	Harry Loyd Walker	Grimsby	2,000
109	Canadian Grape Products, Limited	Jordan	300,000
110	W. N. Counsell	St. Catharines	20,000
111	The Stamford Park Wine Co., Limited	Niagara Falls	250,000
112	Hillrust Fruit Growers, Limited	Thorold	15,000
113	Wilfrid Renaud	Windsor	500
114	Franco Cerra	Fort William	1,000
115	National Fruit & Wine Co	Toronto	140,000
116	J. B. Pellettiero	Fairbanks	500
117	H. R. Ellis	Norval	300
118	J. S. Hamilton & Co., Limited	Brantford	66,000
119	Canadian Wine Co.	Toronto	8,000
120	Albert Boudy	Windsor	500

ONTARIO GOVERNMENT DISPENSARIES

GENERAL MANAGER'S REPORT

Toronto, 19th January, 1924.

James Hales, Esq., K.C.,
Chairman, Board of License Commissioners for Ontario,
25 Queen's Park, Toronto.

Dear Sir,—

I beg herewith to present my annual report to the Board covering the operation of the Dispensaries for the fiscal year ending October 31st, 1923.

New Headquarters.

After having occupied for a year and a half the well appointed and commodious building situated at 154 Wellington Street West, Toronto, the new headquarters of the Dispensaries, embracing Head Office, Central Warehouse and Dispensary No. 1, we believe the wisdom of the purchase has been amply justified. No longer do we have to assemble our carloads, before shipping, from a number of scattered warehouses, as our large Central Warehouse contains sufficient storage capacity to meet our needs. It was at first felt that the basement and three floors of the new building would suffice for our requirements, and that we would be enabled to rent the remaining two floors, but the growth of business has forced us to occupy another floor. Formerly, as pointed out in a previous report, shipments to Dispensaries outside Toronto were delayed by reason of our stocks being located in different warehouses, but under present conditions we have on more than one occasion shipped a carload of liquor on the very day that the order was received. We are enjoying an exceedingly low insurance rate on stock of liquors carried in Central Warehouse and Dispensary No. 1 by reason of our securing the new headquarters. The erection of our garage at the rear of the Dispensaries has also proved a wise move, as our trucks are ready for instant service when required.

Public Service.

Our policy of making certain, wherever possible, that mail orders are despatched on the same day as received has been continued, because we assume that every order is for liquor urgently required. Mail Order shipments showed an increase of 23%, total shipments being 151,602 as against 123,258 for the previous twelve months. The monthly and daily average was respectively 12,633 and 502 compared with 10,271 and 409 during the previous year. Express charges paid, also showed a very heavy increase, amount paid being $90,276.50 as against $72,571.17, an increase of 24.4%.

The delivery service, in the cities where Dispensaries are located, was continued as in the past, but on account of the growth of the deliveries in the City of Toronto, we had to purchase another truck. Three delivery trucks are in use daily in Toronto and one in each of the other cities.

We have adhered to the policy of making our purchases of liquor from long established and well-known firms, whose products have a world-wide reputation, in consequence of which we did not expect many complaints about liquors received, and our expectations were more than fulfilled, as complaints received were very few and far between.

Advisory Committee.

Meetings of the Advisory Committee were held regularly, as in past years, and many important matters were dealt with. Minutes were kept and copies of same forwarded to the Board of License Commissioners. Mr. W. S. Dingman, Vice-Chairman of the Board, continued as Chairman of the Advisory Committee.

Employees.

Efficient service was rendered by the employees of all departments, and although we were sometimes short-staffed during the holiday season or through illness, employees cheerfully assumed the extra duties. Very few changes took place during the year, and the policy of giving preference to ex-service men when filling vacant posts was continued. The Dispensaries on October 31st, 1923, employed 138 persons.

Price of Liquors.

During the year very few changes were made in the prices of our liquors as the cost remained very much the same, and the increase in the sales tax on domestic liquors adopted by the Dominion Parliament, originally intended to become effective on August 1st, was deferred until January 1st, 1924. We did, however, make a reduction in the month of October in the prices of some of our brandies and champagnes, shortly after the Convention of Commerce between Canada and France came into force. The Convention provided for a preference of ten per cent. in the duty on French Cognacs and Armagnacs (brandies) and Champagnes, and a reduction in duty was made on French still wines and vermouth. The excise tax on Canadian sparkling and other than sparkling wines was substantially reduced by Parliament at the last session. When setting our new prices which came into effect on January 1st, 1923, owing to the uncertainty of the future value of the pound sterling we costed our imported beers, whiskies, gins, rums, etc., with the pound sterling at an exchange value of $4.50; but when so doing we had in our Dispensaries and in our Central Warehouse almost sufficient stocks of liquors to carry us to the spring, and it was very fortunate that such was the case as the pound sterling reached as high a point as $4.82 during the latter part of March, and did not drop below $4.50 until after the close of the fiscal year.

As this report could not be written until after the receipt of the auditors' report, which was not received until early in January, we are enabled to state that a new price list, containing a very substantial reduction in prices, was issued on January 1st of this year.

Purchases.

We have now disposed of the very heavy stocks which we had on hand at the end of 1921, and part of which was still in our Central Warehouse or in our various Dispensaries last year. We are now making our purchases with a view to turning same over as quickly as possible, but we must always, for economy in freight charges, have our purchases from overseas for the winter months arrive in the late autumn, consequently our stocks in November and December are greater than at any other period of the year. Stocks on hand at close of fiscal year amounted to $762,165.30.

Prescriptions and Requisitions.

There was an increase of 77,733 compared with the preceding twelve months, in the number of prescriptions and requisitions that passed through our eight Dispensaries. As already pointed out the increase in the mail order shipments was heavy, so that the increase was well divided between counter and mail order sales. The increase was not so great as the increase of the year ending October 31st, 1922, over the previous year.

Financial Statement.

Sales.—The total sales amounted to $4,840,875.82 as against $4,214,261.20 for the previous twelve months. The daily average was $15,976.48. Sales showed 57½% imported liquors and 42½% domestic by value, and 50½% imported and 49½% domestic by gallonage compared with 58% imported and 42% domestic by value, and 51% imported and 49% domestic by gallonage in 1922.

Gross Profits.—We once again reduced our percentage of gross profits, same being principally caused by the reduced prices that came into effect on January 1st, 1923. Gross profit made was 30.77%, or, including hospital sales, 30.61%. In 1920 gross profit was 41.06%; in 1921, 36.56%; and in 1922, 33.81%, but figures for 1920 and 1921 did not include hospital sales which would have reduced percentage slightly.

Payments.—We continued our policy of making substantial monthly payments to the Provincial Treasurer, and during the course of the year paid to the Provincial Treasurer the sum of $850,000; and in addition we paid out of profits for our new headquarters building the sum of $205,000. Since the Dispensaries came into operation we have paid over to the Provincial Treasurer a total sum of $2,500,000

Overhead.—The percentage of overhead expenses was 10.08%, a slight reduction when contrasted with the last year. The overhead included discount to druggists amounting to 1.72%, and mail order expenses, including prepaid express charges, amounting to 2.67%. The percentage of mail order expenses showed an increase owing to the increase in business.

Breakage.—Interior and irrecoverable breakage amounted to .06% as against .07% last year. As in the past criticism is not spared with respect to breakage, and we believe that the utmost precaution is taken in Central Warehouse and in the various Dispensaries to avoid breakages.

Proportion of Brands Sold.

The following table will show by a couple of sample months the proportions of different classes of liquor sold:

	Sept. 1923.		Oct. 1923.	
Alcohol, bottled	$8,424 or	2.1%	$10,288 or	2.5%
" canned	7,980	2.0	6,700	1.6
Bass and Guinness	3,360	.8	3,497	.8
Ale domestic	17,471	4.3	13,764	3.3
Bitters	111	.03	174	.04
Brandies	25,428	6.3	26,934	6.5
Champagnes	558	.14	726	.17
Gin	34,701	8.6	31,954	7.5
Port Wine	840	.2	1,075	.26
Rum	11,988	3.0	15,282	3.7
Sherry	496	.13	534	.13
Six Ounce Dispensary Bottling:				
Brandy, Gin, Rum and Scotch	12,170	3.0	12,204	3.0
Whiskeys:				
Canadian 40 and 26 oz	113,058	28.0	118,774	28.5
" 6 oz	15,616	3.9	14,627	3.5
Irish	14,178	3.5	15,003	3.6
Scotch	138,873	34.0	145,590	34.9
		100.		100.

Various Departments.

Head Office.—The various branches of Head Office, through which practically every transaction carried on by the Dispensaries passes, have displayed the same high standard of efficiency as in the past. The accounting branch has continued to furnish to the Board of License Commissioners each month a financial statement almost similar in its detail to the financial statement presented twice a year by the Auditors. Many special reports are constantly asked for and furnished with dispatch.

Censor's Department.—This department carried on a most important work for the Board, furnishing monthly a statement containing the number of prescriptions issued by each physician, and the quantities of liquor obtained on requisitions by physicians for office use, by the dentists, the druggists, the veterinary surgeons, the manufacturers, and the hospitals, etc. It has continued to obtain the signatures of all new graduates from the various Colleges. The department has to keep in touch with the governing bodies over the physicians, dentists, druggists and veterinary surgeons, as names are constantly being added to or removed from our lists.

Central Warehouse.—So far as liquor stocks are concerned this department is the "feeder" of the Dispensaries and its work is carried out in a most prompt and efficient manner. The department also has charge of confiscated stock, and a most minute examination is made of every bottle, barrel, etc., received. Whatever bottling we do, very small in proportion to the volume of our business, is done by Central Warehouse. During the past year this department handled 148,729 cases of liquor.

Dispensaries.—The knowledge which the public in general possess about the manner in which the Dispensaries carry on their work is obtained

almost entirely when they come into contact with the various Dispensary Managers and the employees under them, either when purchasing direct at the counter or receiving their liquors by mail order, and as the complaints received are practically nil, we believe the public are well satisfied with the service given.

In closing I desire to express my warmest thanks for the assistance rendered by the Board of License Commissioners, more especially by the Vice-Chairman, Mr. W. S. Dingman, who has been continually in touch with our work. Our relations with the Auditors have continued most pleasant, and we have endeavoured to meet all suggestions made.

Respectfully yours,

ONTARIO GOVERNMENT DISPENSARIES,

A. H. Birmingham,
General Manager.

ONTARIO GOVERNMENT DISPENSARIES

REPORT OF AUDITORS

TORONTO, DECEMBER 26th, 1923.

JAS. HALES, ESQ.,
Chairman, Board of License Commissioners of Ontario,
25 Queen's Park, Toronto.

DEAR SIR,—

We have audited the books and accounts of the Dispensaries, Central Office and Central Warehouse for the year ending 31st October, 1923, and have prepared the enclosed Balance Sheet and Schedule relative thereto, which, subject to the following remarks, exhibit a true and correct view of the position of the undertaking on 31st October, 1923, and a correct statement of the earnings for the year.

We report in detail as follows:

BALANCE SHEET.

ASSETS.

Real Estate and Buildings, $236,597.37.

Of this amount $33,822.37 is the cost of the land at the rear of 154 Wellington Street, West, purchased in 1922, and the garage building erected thereon. No depreciation has been provided during the year because the garage has only just been completed. We have seen a copy of the title deed in the name of the Government, certified by the Department of the Provincial Secretary as being a true copy.

During the year there was purchased the land and buildings at 154 Wellington Street West, for $205,000.00. The assessed value of the land is $71,500.00. Depreciation at the rate of 5% per annum has been provided on the building on an estimated value of $133,500.00.

We have seen the title deed to this property.

Petty Cash	$2,200.00
Dominion Bank, Toronto	146,995.67
Dominion Bank, London, England	699.72
	$149,895.39

We verified the cash at Central Office by actual count on 31st October, 1923, and received certificates from your Branch Managers and a representative from Central Office as to the amounts on hand at the Dispensaries.

The Bank balances are in agreement with certificates from your Bankers after allowing for outstanding cheques.

Accounts Receivable, $11,230.49.

We have carefully examined these accounts, which consist of sales to hospitals and other institutions, manufacturers and sundry accounts and any probable losses have been provided for.

Claims—Freight Claims	$2,636.85
Claims—Duty Recoverable	2,167.10

A reserve has been provided which in our opinion is sufficient to cover any losses.

Accrued Interest (Bank), $1,504.40.

This has been compared with the monthly reports from your Bankers.

Stock of Liquors at Cost Price, $762,165.30.

Your General Manager has certified that an inventory of stock was taken under his direction at 31st October, 1923, and was priced at cost.

The inventories at the dispensaries were taken by the managers and one of the Central Office staff and at the Central warehouse by the chief stock accountant and the warehouseman on 31st October, 1923, and were checked with the stock ledgers kept at the Central Office and found to be in accordance therewith.

Attached hereto, Schedule 5, is a statement showing the stock on hand and furniture and fixtures at each dispensary and amount of fire and other insurance carried.

The confiscated stock on hand at Toronto, 31st October, 1923, amounting to $70,372.96, is not included in the assets as the Dispensaries only handle the stock and keep the records on behalf of the Board of License Commissioners, purchasing from the Board such stock as they require from time to time.

Fire, Riot and Burglary insurance is carried on Confiscated Liquor in conjunction with Liquors, etc., owned by the Ontario Government Dispensaries as shown on Schedule 5.

Cases, Barrels, etc., on Hand, $2,297.65.

We have seen a certificate signed by the clerk in charge of the stock ledgers that there are sufficient beer cases and other containers on hand, valued at invoice cost, to cover this amount.

Stationery and Supplies, $8,122.35.

The chief stock clerk certifies that stationery and supplies on hand priced at cost amounted to $8,122.35. A reserve has been provided for the whole amount.

Liabilities.

Accounts Payable and Accrued Charges, $5,393.83.

Your accountant has certified that all known liabilities to 31st October, 1923, were included in the books at that date.

Reserve for Supplies and Contingencies, $15,322.98.

This includes a reserve for the total amount of the stationery and supplies and sufficient to provide for any losses in the collection of the claims and Accounts Receivable.

Contingent Liabilities.

The value of goods ordered but not received to 31st October, 1923, amounted to $434,619.30, and the duty payable on stocks in bond amounted to $531,715.65. Your General Manager certified that these amounts were correct.

Leases.

Schedule 7 gives a description of the various premises occupied by your Dispensaries, Central Office and Central Warehouse.

Surplus, $1,156,149.09.

This is the balance of profits made since the Dispensaries were opened on 24th May, 1919, after paying $2,500,000 to the Provincial Treasurer and writing off the whole of the machinery, equipment and office furniture, and alterations to the building at 154 Wellington West.

Details of the profits earned for the year ending 31st October, 1923, are shown in the attached Schedules 1, 2 and 3. We have to report on the principal items as follows:

PROFIT AND LOSS ACCOUNT.—SCHEDULE 1.

This schedule shows in detail the operations of the various Dispensaries. The liquors are purchased through the Central Warehouse and are charged up to the various dispensaries at cost.

The gross profits resulting from sales at dispensaries amounted to	$1,471,269 83	30.77%
From this must be deducted the following:		
Discount on sales to chemists and druggists	82,179 79	1.72%
Mail order shipping expense	127,421 28	2.67%
Operating expense including Central Office and Central Warehouse expense	278,244 51	5.81%
	$487,845 58	10.20%
Leaving a net profit on operations of dispensaries of	$983,424 25	20.57%

Your policy is to sell the liquors at the same price throughout the Province and to pay the expense of special packing and express charges. We have shown on the same schedule the comparative statements of the total business done by each dispensary.

The percentage of gross profits earned by each dispensary were:

No. 1, Toronto	30.81 per cent. of sales
No. 2, Toronto	30.61 per cent. of sales
No. 3, Hamilton	30.51 per cent. of sales
No. 4, London	30.87 per cent. of sales
No. 5, Windsor	30.94 per cent. of sales
No. 6, Kingston	30.27 per cent. of sales
No. 7, Ottawa	30.70 per cent. of sales
No. 8, Fort William	32.18 per cent. of sales

The differences are accounted for by the varying ratio of profits on the class of liquor sold.

OPERATING EXPENSES.—SCHEDULE 2.

This Schedule shows details of the various expenses together with the percentages that these expenses bear to the sales. The largest item consists of salaries, etc., $180,099.10, being approximately 3.76% of the total sales of $4,781,712.41. It must, however, be borne in mind that the bulk of the sales are made in single bottles and record has to be kept of every bottle at the Central Office. The amount written off for breakages is $2,860.65 or .06% of the sales. Under the present system of cost records it is the only item of stock which cannot be checked and should be subject to the closest supervision by the

management. This item of expense is passed in the minutes of the Advisory Committee monthly.

Net Profit and Loss Account.—Schedule 3.

This schedule shows the total sales for the year, including sales of alcohol and sales to hospitals, and miscellaneous receipts, and the net profits after charging up the cost of alcohol sold and liquors sold to hospitals and writing off the expenditure on machinery, equipment, furniture and alterations to building. The percentage of net profits to total sales was 20.42%.

Yours faithfully,

Clarkson, Gordon & Dilworth.

ONTARIO GOVERNMENT DISPENSARIES

BALANCE SHEET, 31st OCTOBER, 1923.

Assets.

Real Estate and Buildings:			
Land, 69 Simcoe Street	$20,000 00		
Garage Buildings, 69 Simcoe Street	13,822 37		
		$33,822 37	
Land and Buildings, 154 Wellington St. W.	$205,000 00		
Less—Depreciation	2,225 00		
		202,775 00	
			$236,597 37
Petty Cash on Hand		$2,200 00	
Cash in Dominion Bank, Toronto		146,995 67	
" " " London, England		699 72	
			149,895 39
Accounts Receivable		$11,230 49	
Freight Claims		2,635 85	
Duty Recoverable		2,167 10	
Accrued Interest (Bank)		1,504 40	
			17,537 84
Stock at Cost Price (Schedule 5)		$762,165 30	
Cases, Barrels, etc., on hand		2,297 65	
Stationery and Supplies		8,122 35	
			772,585 30
Prepaid Rent, 29 Front St. E.			250 00
			$1,176,865 90

Liabilities.

Accounts Payable		$5,154 42	
Accrued Expenses		239 41	
			$5,393 83
Reserve for Supplies and Contingencies			15,322 98
Surplus:			
Balance at 1st November, 1922		$1,017,695 67	
Profit for year		988,453 42	
		$2,006,149 09	
Less:			
Paid to Provincial Treasurer		850,000 00	
			1,156,149 09
Contingent Liabilities:			
For undelivered orders (Schedule 6)		$434,619 30	
For Duty on Stocks in Bond		531,715 65	
			$1,176,865 90

Referred to in our report of this date.

Clarkson, Gordon & Dilworth,
Chartered Accountants.

Toronto, 26th December, 1923.

SCHEDULE 3

ONTARIO GOVERNMENT DISPENSARIES

NET PROFIT AND LOSS ACCOUNT FOR YEAR ENDING 31st OCTOBER, 1923.

				Percentage to Total Sales
Cost of stock sold at Dispensaries (Schedule 1)		$3,310,442 58		
Cost of stock sold to Hospitals		36,672 74		
Cost of alcohol sold	$68,059 01			
Less:				
Duty recoverable by Hospitals (per contra)	55,827 08			
		12,231 93		
			$3,359,347 25	69.39
Operating Expense (Schedule 1)		$278,244 51		
Discounts (Schedule 1)		82,179 79		
Mail Order Expense (Schedule 1)		127,421 28		
			$487,845 58	10.08
Machinery, equipment and furniture, balance written off			2,326 40	.05
Cost to date of alterations to building			11,840 16	.24
Net Profit			988,453 42	20.42
			$4,849,812 81	100.18

				Percentage to Total Sales
Sales at Dispensaries (Schedule 1)		$4,781,712 41		
" to Hospitals, etc		42,838 62		
" of Alcohol to Hospitals	$72,151 87			
Less:				
Duty recoverable by hospitals (per contra)	55,827 08			
		$16,324 79		
			$4,840,875 82	100.
Sundry Receipts:				
Sales of Empties, Scrap, etc		$1,549 64		
Cash Overages		10 45		
Claims collected in excess of expectations		38 12		
Interest on Bank Balances		6,434 20		
Rebate of Interest		904 58		
			8,936 99	.18
			$4,849,812 81	100.18

SCHEDULE 4

ONTARIO GOVERNMENT DISPENSARIES

SUMMARY OF CENTRAL WAREHOUSE STOCK ACCOUNT FOR YEAR ENDING 31st OCTOBER, 1923.

Stock on Hand, 1st November, 1922		$519,085 97
Purchases		1,417,519 49
Duty		1,893,874 78
Freight Inwards and Marine Insurance		71,729 70
Cost of Bottling Liquor		22,007 99
		$3,924,217 93
Less:		
Claims and Breakages		10,297 59
		$3,913,920 34
Cost of Shipments to Dispensaries:		
Dispensary No. 1, Toronto	$1,358,532 61	
" 2, Toronto	342,739 94	
" 3, Hamilton	440,855 43	
" 4, London	398,480 15	
" 5, Windsor	167,169 15	
" 6, Kingston	254,589 63	
" 7, Ottawa	205,459 77	
" 8, Fort William	129,821 29	
		$3,297,647 97
Cost of Sales to Hospitals and Manufacturers		104,731 75
Stock on Hand, 31st October, 1923		511,540 62
		$3,913,920 34

Ontario Department of Agriculture

REPORT

OF THE

Minister of Agriculture

Province of Ontario

FOR THE YEAR ENDING OCTOBER 31, 1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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REPORT

OF THE

Minister of Agriculture for Ontario

1923

To His Honour Colonel Henry Cockshutt,

Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I have the honour to submit the Annual Report of this Department for the fiscal year ending October 31st, 1923.

Having had charge of the administration of the Department for only a little over three months of the current fiscal year, I will attempt to do no more at this time than to present a statement of the work which has been carried on during the past year under the different branches of the permanent Department organization.

As in previous years, the Department received a special grant from the Federal Government at Ottawa for the carrying on of agricultural work. The Agricultural Instruction Act which has been in operation for a period of ten years, and under which this Province received annual grants up to $336,303.26, has expired. Pending a decision as to the final action on the question of renewal, the Federal Government set aside the sum of $900,000.00 for apportionment among the Provinces during the present year. This represents a reduction of $200,000.00 over previous years and, as a consequence, the grant payable to this Province was only $254,001.57 instead of $336,303.26, as already mentioned. This grant was apportioned in Ontario as follows:

Ontario Agricultural College.		
Salaries and expenses		$9,000 00
Agricultural School and Farm.		
(a) Capital expenditure	$3,000	
(b) Administrative and teaching staff, and maintenance and equipment	49,000	
		52,000 00
Instruction and Demonstration.		
Agricultural Representatives		136,000 00
Extension work in household science		1,500 00
Demonstrations in vegetable growing		4,000 00
Co-operation and markets		6,000 00
Short courses for winners of field crop and live stock competitions including travelling and living expenses		1,000 00
Lectures on horticulture		750 00
Demonstration work on soils		9,500 00
Drainage work		4,751 57
Fall Fair and field crop judges		2,000 00
Demonstrations in live stock and poultry		3,500 00

ELEMENTARY AGRICULTURAL EDUCATION.

To provide for and encourage the teaching of agriculture in high and public schools	24,000 00
	$254,001 57

Further reference to the details of the work will be found under the different Branches by which the work was carried out.

All of which is respectfully submitted.

JOHN S. MARTIN,
Minister of Agriculture.

ONTARIO AGRICULTURAL COLLEGE

In the matter of attendance the College has shown a decrease in recent years, the freshman class at the opening of the current term being the smallest for some years. The following figures which include the winter course of the current term, show the attendance in the different classes:—

General Course	443	
Specialists in General Course Work	9	
Dairy Courses	125	
Stock and Seed Judging	68	
Poultry Raising	31	
Horticulture	37	
Apiculture	37	
Drainage and Drainage Surveying	4	
Farm Power	19	
		835
Domestic Science (at Macdonald Institute)		408
Summer Courses: High School Teachers—1st year, 14; 2nd year, 20	34	
Public School Teachers—1st year, 66; 2nd year, 128	194	
School for Rural Leadership	93	
		321
Total		1,564

ANALYSIS OF COLLEGE ROLL (GENERAL COURSE) 1923.

From Ontario:

Algoma	2	Kent	3	Prescott	3
Brant	11	Lambton	11	Prince Edward	1
Bruce	10	Lanark	9	Rainy River	0
Carleton	32	Leeds	6	Renfrew	1
Dufferin	3	Lennox & Addington	2	Russell	3
Dundas	5	Lincoln	18	Simcoe	13
Durham	4	Middlesex	21	Stormont	0
Elgin	12	Muskoka	4	Temiskaming	3
Essex	5	Nipissing	4	Thunder Bay	5
Frontenac	3	Northumberland	2	Victoria	2
Glengarry	4	Norfolk	5	Waterloo	6
Grenville	3	Ontario	6	Welland	2
Grey	6	Oxford	12	Wellington	35
Haldimand	8	Parry Sound	3	Wentworth	9
Halton	8	Peel	4	York	47
Hastings	3	Peterboro	2		
Huron	5	Perth	6		

Total from Ontario 372

From Other Provinces of the Dominion:

Alberta	4	New Brunswick	7	Prince Edward Island	2
British Columbia	13	Nova Scotia	13	Saskatchewan	7
Manitoba	1	Quebec	3		

Total from other provinces 50

From Other Countries:

Bermuda	1	South Africa	1	U. S. A.	3
England	11	Switzerland	1		
Ireland	2	Trinidad	1		
Scotland	1				

Total from Other Countries 21

AGE AND RELIGIOUS DENOMINATIONS.

The limits of age in the General Course, 1923, ranged from 18 years to 41 years. The average year was 22.5.

Religious denominations of students registered for the fall term were:

Anglican	91	Church of Christ	6	Methodist	137
Baptist	28	Evangelical	1	Presbyterian	147
Congregational	9	Friends	2	Roman Catholic	20
		Lutheran	2		

ANIMAL HUSBANDRY AND FARM DEPARTMENT.

Seasonal crop results have been most satisfactory in spite of somewhat adverse weather conditions. Mixed grains yielded 50 and 60 bushels per acre, barley 40 and oats 60. One hundred loads of hay were taken from a 30-acre field of new seeding. Two good cuttings of alfalfa were taken from a 20-acre plot, success with this crop after previous failures being ascribed to the use of Ontario variegated seed. Corn and mangels were not quite up to standard, but turnips were a bumper crop, there being 6,000 bushels from eight acres.

In the matter of the live stock carried, a new dairy herd is being built up. The previous herd was very largely eliminated as a result of the combination tuberculin test, all of the sixty-two reactions being slaughtered. This has naturally interfered with the breeding and experimental work in the dairy barn. A new herd is being built up from the calves from the reacting cows which have passed a clean test and the purchase of a number of Holstein, Jersey and Ayrshire heifers from accredited herds.

During the year an excellent young bull of Gay Lad breeding was purchased to head the Hereford herd. Representation in other lines including sheep and swine have been well maintained.

A number of useful experiments in live stock breeding are under way.

The annual sale of live stock was held in the pavilion, Thursday, October 25th, and considering conditions in the live stock trade was very successful. A large crowd assembled and bidding was fairly brisk, the 131 lots selling in a little over three hours. The following is a summary of the sale:

5 Shorthorn bull calves	$915 00
6 Fat cattle	710 50
11 Dairy bulls	715 00
12 Ram lambs and two ewes	299 50
15 Fat lambs	165 00
62 Yorkshire pigs	1,745 00
19 Tamworths	450 00
13 Berkshires	345 00
Total	$5,345 00

The effect of the sale is to distribute a good deal of very excellent breeding stock among the farmers of the Province. Because of the high standard of the stock offered annually the sale has now established a reputation and it is looked forward to each year by breeders all over Ontario. The one disappointing feature in the last sale was the prices brought by the hogs. Although the quality was never better the prices were somewhat low. The advantage goes to the buyers and the College has the satisfaction of having distributed breeding stock which will produce excellent results.

FIELD HUSBANDRY.

Teaching and experimental work on 2,500 plots and in co-operation with farmers throughout the Province have as usual been carried on by the Field Husbandry Department.

Within the past year, one hundred and twenty-one distinct experiments have been conducted in our experimental grounds. Nearly two thousand farmers have been furnished with pure seed and other material, with instructions and full information for conducting tests on their own farms. About thirty short reports and articles giving results of our own field experiments have been prepared and most of them sent to the press through the Extension Department.

The following list gives our latest information regarding a few of the most desirable varieties of farm crops for use in Ontario: Oats—O.A.C. No. 72; Banner and O.A.C. No. 3; Barley—O.A.C. No. 21; Winter Wheat—O.A.C. No. 104; Dawson's Golden Chaff and Imperial Amber; Spring Wheat—O.A.C. No. 85, Marquis and Wild Goose; Spring Rye—O.A.C. No. 61; Winter Rye—Rosen, New Invincible and Petkus; Emmer—Common; Buckwheat—Rye; Field Peas—O.A.C. No. 181, Potter, Arthur and Canadian Beauty; Field Beans—Pearce's Improved Tree and Pea Beans; Soy Beans—O.A.C. No. 211; Vetches—Hairy; Flint Corn—Gold Nugget, Longfellow and Salzer's North Dakota; Dent Corn—Golden Glow, White Cap Yellow Dent, Wisconsin No. 7 and Bailey; Sweet Corn—Golden Bantam; Sorghum—Early Amber; Sunflowers—Black Giant and Mammoth Russian; Mangels—O.A.C. No. 2 Strain of Yellow Leviathan; Swede Turnips—Good Luck and Hall's Westbury; Millet—Japanese Panicle and Japanese Barnyard; Pasture Rape—Dwarf Essex; Cow Cabbage—Sutton's Earliest Drumhead; Early Potatoes—Irish Cobbler; Late Potatoes—Dooley and Green Mountain; Alfalfa—Grimm and Ontario Variegated; Sweet Clover—White Blossomed Biennial; Grasses—Orchard, Tall Oat and Meadow or Tall Fescue.

POULTRY DEPARTMENT.

The increasing interest in poultry continues, more farmers are looking to fowl as a means of increasing the farm revenue, more poultry farms are being established, and there are many people in the cities who are adding to their incomes by flocks of poultry. There is a large demand for laying hens, and more demand for knowledge as to the sorting of the good layers from the poor layers.

The year 1923 was an unusual one for the poultry keeper. The late fall of 1922 was for some reason favourable for the development of disease. There were several rather severe outbreaks of roup and chickenpox. An increase of disease is to be expected where more poultry is kept on small lots or where there are too many birds in a house. It is unusual, under ordinary circumstances, for as many serious conditions as developed last winter.

The hatching season was not good; many eggs were not fertile, and there was an increase in the dead in the shell. The number of eggs set to get a mature pullet is possibly the most inefficient part of the poultry business. The hatching power of eggs is known to be an inherited character, yet the hatching power of eggs is very seriously affected by nutrition and general care and management. The Department has been conducting some experiments along these lines, but results so far would not warrant any conclusions being offered. The problem is complicated and will take some time to work out.

The average egg production of the thousand pullets that were trap-nested for the year was 168 eggs each. We are trying to improve the strain in size of body, size of eggs and colour, rather than increasing the number of eggs.

Five pens of ten pullets each were placed in laying competitions. The fifty birds averaged slightly above 190 eggs each. The high bird of those in the contests was 263 eggs, and the high bird of those on the plant was 296 eggs.

The demand for extension was greater than ever this year, not only for culling demonstrations, but for short courses and special poultry meetings.

A number of counties are interested in a general plan of culling all the hens and making a special effort to market the culls at once. If an owner has a number of unprofitable birds, there is not much use of isolating such specimens unless they are placed on the market in a reasonable time.

During the year 414 culling demonstrations were held, with an attendance of over 5,000 people. In addition to the above, short culling schools were held in Woodstock, Port Hope and Napanee.

It may be of interest to know that, of fifty thousand hens handled at demonstrations, over seventeen thousand were considered to be culls, in so far as profitable egg producing is concerned.

There are now two hundred and seven breeding stations, with 12,786 hens. The Department supplied 845 pedigreed cockerels for these stations.

CHEMISTRY DEPARTMENT.

During the latter part of 1922 and till May, 1923, efforts were directed towards completing the Report of the Preliminary Soil Survey of South-western Ontario. In June, 1923, two men took up the work of mapping the remaining portion of Kent County. In four months field work they were able to complete the soil map of Kent County in adequate detail. Many interesting soil conditions were found. One of the most striking features was the location and mapping of an area of "Creek Land," as it is known locally, or old River Bottom, which has a high lime content. An area of till soil was mapped, which was a rather unexpected occurrence in an area classed in the Glacial Lake Soil Province. In Dover Township a peculiar arrangement of subsurface and subsoil lead us to classify a part of this area as a mixed class. This condition, and the difficulties attendant on its correct delineation, formed the basis of a paper read before the American Association of Soil Survey Workers at Chicago in November, 1923. Leaders at this conference expressed their approval of the methods adopted in mapping this area. One of the most pleasing features of the field work was the interest shown in the work by the farmers and officials of Kent County. The work of analyzing the soil samples of the various series and types and the preparation of the soil map of the county is now under way and we hope to have it ready for the printer by spring. The first bulletin entitled "The Preliminary Soil Survey of South-western Ontario," No. 298, dealing with the earlier work of the survey was published this year.

The three demonstration or experimental plots which have been started as follow-up work in connection with the soil survey are now giving interesting results. The outstanding feature so far is the proved beneficial effect of lime and phosphoric acid. On the light sandy soil of the Norfolk plot the increasing amount of decaying organic matter is beginning to make itself felt in the improved texture of the soil and increasing the crop yields. On all three of these experimental plots, certain mixtures of fertilizers are giving paying results, while other mixtures are not.

A very successful field day was held on the Welland plot early in August, where a number of the farmers of the surrounding district spent an interesting three hours looking over the various plots.

An exhibit illustrating some of the results obtained was made at both the Simcoe and Welland fairs.

The triangle experiments with potatoes have been continued, carrying them into four other districts chiefly devoted to potato growing. Taking into account the difference in the weather in the different districts, the results obtained confirmed those reported last year. Namely, that legumes may be used to gather all or nearly all of the nitrogen required by the potato crop, and that phosphoric acid and potash in proper proportion may be used to increase both the quantity and quality of the crop with profit.

Triangle experiments have also been carried out on beans and sugar beets. These were tentative experiments as a basis for further development in this work next year.

Lime Phosphate Experiments. These experiments were planned to see the effect of lime, lime and acid phosphate, and mixed fertilizer on the wheat and the succeeding crop of clover. Each experiment consisted of four one-half acre plots, and these were laid down on three different farms in eight different counties, twenty-four experiments in all. As these experiments were started in the fall of 1922, only the wheat crop has been harvested. The clover, however, shows marked difference in development in the various plots, and interesting results may be expected next season.

The outstanding result so far obtained is that acid phosphate increased the yield of wheat in every experiment. The average for the check plot was 22.2 bushels per acre, and the acid phosphate plot 34.34 bushels per acre, an increase of a little over fifty per cent. Assuming that the addition of acid phosphate at the rate applied on these experiments would have given the same results on the 717,307 acres of fall wheat harvested in Ontario in 1923, the value of the crop would have been increased by nearly eight million dollars, at a profit, above the entire cost of the acid phosphate, of over four million dollars.

The above work is being duplicated in eight other counties next season.

DAIRY DEPARTMENT.

One of the numerous experiments carried on by the Dairy Department was a continuation of the investigation as to the effect of allowing cows to pasture on sweet clover when producing milk for the manufacture of cheese.

About half of the patrons supplying milk to the Dairy Department of the College use sweet clover as a pasture crop, and the other half do not. The milk from each set of patrons was made up separately on five dates during June and July. The sweet clover lots of milk weighed 3,510 pounds, and the non-clover lots, 4,025 pounds. The average percentages of fat were 3.2 and 3.38 respectively. There was practically no difference in the acidities of the milk of both lots at the time of adding the rennet, or when dipped. The losses of fat in the whey averaged .182 and .21 per cent. fat respectively. The average yield of cheese per 1,000 pounds milk was 91.23 pounds for the sweet clover lots and 92.33 pounds for the non-clover lots. The percentages of moisture in the green and ripe cheese were practically the same. The average score of the cheese was the same for flavour in both lots. The average total score of the cheese was 93.15 for the clover lots and 93.6 out of 100 for the non-clover

cheese. There was nothing abnormal about the sweet clover lots of milk or cheese. The results are similar to those obtained during 1922. These two years' tests indicate that there is apparently no reason why cows fed or pastured on sweet clover, should not produce satisfactory milk for the making of good Cheddar cheese.

HORTICULTURAL DEPARTMENT.

Looking after the campus, giving instruction and carrying on experiments with reference to floriculture, landscape gardening, pomology and vegetable growing, as well as doing some plant breeding and supervising potato inspection work, are all functions of the Horticultural Department.

In the plant breeding work considerable success has been attained in the John Baer–Earliana cross in tomatoes. This variety is now being grown somewhat extensively. Seed was distributed in the spring of 1923; the Jerome B. Rice Company of Grass Lake, Michigan, report that in their trial plots the first tomatoes picked were of this cross. They state that the quality and continued yielding ability make it a very superior sort. A somewhat similar report was received from the Bureau of Plant Industry, Washington, special comment being made upon the quality. A report from the Vineland Experimental Station shows it to have an early and long-bearing season. Our own results with it have been very satisfactory. However, there is still some variation and it will need further selection. It has been named "The Canadian."

Potato inspection work is proving very useful and acceptable to the growers. The value of certified seed is becoming more generally recognized and should prove the basis of a revived potato industry.

The following is a summary of the field inspections for Certified Seed:—

NORTHERN ONTARIO.

No. fields inspected	No. acres inspected	No. fields passed	No. acres passed	Per cent. of fields passed	Per cent. of acres passed
162	200½	100	149¾	61.7	74.7

	Blackleg	Leaf Roll	Mosaic	Wilts
Average per cent. disease in total fields inspected	.9	1.0	2.6	.09
Average per cent. disease in fields passed	.4	.9	1.5	.07
Average per cent. disease in fields rejected	1.4	1.6	3.0	.1

Reasons for rejection of fields—

Blackleg	7 fields
Wilt	1 field
Leaf Roll	4 fields
Presence of foreign varieties	13 fields
Mosaic	2 fields
Lack of vigour	17 fields
Frost injury	4 fields
Hail injury	1 field
Rhizoctonia	2 fields
Failure of crop	2 fields
Not recommended for various reasons (chiefly climatic conditions)	9 fields
Total	62 fields

Total fields rejected, 62
Total acreage rejected, 50¾

SOUTHERN ONTARIO.

No. fields inspected	No. acres inspected	No. fields passed	No. acres passed	Per cent. of fields passed	Per cent. of acres passed
142	308¼	71	195¾	50.0	63.5

	Blackleg	Leaf Roll	Mosaic	Wilts
Average per cent. disease in total fields inspected...	.31	3.9	2.6	.07
Average per cent. disease in fields passed.....	.2	1.3	.9	.03
Average per cent. disease in fields rejected.....	.4	4.9	3.9	.006

Reasons for rejection of fields—Leaf Roll.....40 fields
Mosaic..... 9 fields
Lack of vigour..... 4 fields
Presence of foreign varieties..14 fields
Rhizoctonia..... 1 field
Withdrawn by growers..... 2 fields

Total.....70 fields

Total fields rejected, 70
Total acreage rejected, 112½

It is interesting to note that the seed used in every field that passed inspection this year in Southern Ontario came from points north of Toronto within the last two years, except for the rural type of potato which does not appear to break down to disease quite as rapidly as the Green Mountains or Irish Cobblers.

New Plant Diseases.

This summer two diseases were brought to the attention of the Department of Botany which are evidently new to Ontario, namely, Chestnut Blight and Coryneum Twig Blight of Manitoba maple. The former disease is one of great economic importance.

Specimens of Chestnut blight were first received from Fonthill, and further investigation revealed the fact that this disease was also present in Norfolk County. The Chestnut Blight has caused terrible destruction in the United States to the Sweet Chestnut (*Castanea dentata*). In many sections practically all the sweet chestnut trees have been killed, and the disease threatens to exterminate the sweet chestnut of the United States, in spite of the fact that millions of dollars have been expended in endeavouring to control it.

Chestnut blight is caused by the fungus *Diaporthe parasitica* Murr. This fungus gains entrance to the trees through small wounds in the bark and extends into the living bast, cambium and even the young wood. Extensive cankers are produced. The bark and bast shrivel and crack. Little pustules appear on the diseased areas in which are produced millions of spores for the further spread of the fungus. The cankers finally become so extensive that the branch is girdled and the top above the canker dies. The cankers may appear on the smaller branches, but the greatest damage is done when the large branches or main trunks are affected. After this fungus has caused the death of a portion of the tree other fungi gain entrance and produce rots which in a short time render the tree entirely unfit for lumber.

No method for the control of this disease has yet been discovered. In sections where the disease is present it is usually recommended that the chestnut trees be cut and the timber utilized as soon as possible. Japanese and Chinese species of chestnuts are resistant to the disease and these may be used to replace our native species.

During the past year the following experimental work has been carried on:
Co-operative experiments in Weed Eradication.
Potato Disease Investigation in Co-operation with Agricultural Representatives.
Control of Pod Spot or Anthracnose of Beans.
Experiments in the Prevention of Rhizoctonia or Black Scurf of Potatoes.

Investigation into the Cause and Means of Control of Root Rot of Canning Peas.

Experiments in Co-operation with the Department of Entomology to determine whether financial gains are to be secured in the spraying of commercial vineyards for the control of insects and fungus diseases and to determine the time and number of applications for best results.

Cereal Treatment Project in co-operation with the Crop Protective Institute of the United States.

In Potato Disease Investigation in co-operation with Agricultural Representatives during the past six years, the following facts have been brought out:

First—That certified seed potatoes give much better yields than the uncertified seed potatoes which have been commonly used by the farmers of this Province in the past.

Second—That Northern Ontario seed potatoes give as good yields on the average as those imported from the Maritime Provinces.

Third—That in certain sections of Old Ontario, excellent seed potatoes can be produced by continued selection and roguing.

BACTERIOLOGY DEPARTMENT.

Over four thousand cultures of legume bacteria for seed inoculation and two hundred lactic cultures were prepared and forwarded to applicants.

We received for bacteriological examination, and reported on, two hundred and seven morbid specimens of poultry, animals, and plants, sixty-two samples of farm well water, of which forty-six were condemned for pollution; and many miscellaneous samples such as milk, bread, ensilage, soil, sewage, etc.

Examination was made of a number of samples of gelatin obtained by the Dairy Department from different sources for use in the manufacture of ice cream. These samples varied greatly in their bacterial content ranging from 20 to 960,000 per gram. Where an endeavour is being made to control bacterial content of the ice cream, it is desirable that only gelatin of reasonably low bacterial content be used.

Difficulty in securing the proper preservation of composite samples of milk in cheese factories, condenseries and city milk plants, has been reported to us during the past two seasons from both Eastern and Western Ontario, and our assistance has been sought to locate the cause. Our investigations indicate that the trouble is largely due to the use of an insufficient quantity of preservative.

Routine examination for yeasts and moulds of samples of pasteurized cream butter sent from the Provincial Butter Grading Station, Toronto, has been carried on during the months of May to September (inclusive) as in previous years. Six hundred and eighty-one samples, from sixty-six creameries, were analyzed during 1923, compared with 639 in 1922; 574 in 1921, and 315 in 1920.

In addition to the above, bacterial counts were made of 205 "Storch test negative" lots, from fifty-five creameries, during June and July. Counts obtained ranged from 2,000 to 24,000,000 per c.c. of butter; 120 lots or 58.5% giving counts of over 100,000 per c.c., 53 lots or 25.8% giving counts of over 500,000 per c.c., and 25 lots or 12.2% giving counts of over 1,000,000 per c.c. This butter was scored when fresh and also in November, being held at a temperature of around 15°F. Rescores indicate the superior keeping quality of the low bacterial content lots.

FARM ECONOMICS.

Continued studies of the economic side of farming are being made by the Economics Department. What was known as Farm Survey work was discontinued last year as the violent fluctuations of recent years mitigated against an accurate and useful study of the farm business. The more detailed work of Farm Cost Accounting is being continued, and this now covers practically all the common farm products of Ontario. The field work will be completed this year, but some time longer will be necessary to fully compile and analyze the results.

During the past year this Department has assisted committees in preparing facts and arguments to be presented to the Railway Commission favouring a reduction in freight and express rates on live stock and agricultural products. Marketing studies have been continued, the subjects being: the distribution of fluid milk in cities and towns in Ontario, marketing apples, the manufacture and marketing of Ontario butter. Information on these subjects will be published later.

Drainage Work.

The policy of the Drainage Department during the year has been to assist wherever possible with the improvement of farm lands suffering from lack of drainage. The various avenues of activity have been as follows:—

1. Assisting farmers with their drainage areas by making a survey of it to determine the course of the drains, depths of drains and outlets, the most economic system, size and number of tile and other installation specifications, for which blue printed plans are prepared.

2. Inspection of the actual work of installation, having in mind the protection of the farmer against poor work and poor tile or the qualifications of an operator for a certificate, or both.

3. Special investigation of large areas, with the idea of opening up outlets and the improvement of excellent agricultural lands.

4. Assisting ditching machine operators to secure work in new territories by interviewing individuals who have drainage work to do and by addressing special drainage meetings.

5. The actual installation of drainage systems in districts remote from where private machines are owned, or the installation of small areas to demonstrate to a community the actual effects upon the soil, cropping and cultivating possibilities.

6. Conducting of Winter Short Courses at which machine operators are particularly urged to attend, in order that they might study the science of drainage and soils as an assistance to the practical work.

7. Addressing of farmers' gatherings where the value of underdrainage can be presented, action stimulated and interest aroused.

8. Addressing of Township Councils with particular reference to the discussion of the Tile Drainage Act.

9. Advising ways and means for outlets for certain localities with explanation of proceedings under the Drainage Acts.

As with last year the work has been much more effectively carried on with experienced permanent men than could have been done with temporary men, temporary men being used for assistance during the rush season.

Permanent supervisors are located at Dundas for Southern Ontario; Chatham for Western Ontario, and Kemptville for Eastern Ontario.

Field Surveys.—The following table shows the actual amount of field work that was done during the year:—

County	No. of Surveys	Acres
Algoma	2	55
Brant	3	72
Carleton	5	350
Elgin	11	448
Essex	6	315
Frontenac	1	30
Halton	5	141
Hastings	1	60
Huron	6	515
Kent	10	480
Lambton	5	340
Lanark	2	58
Leeds	2	98
Lincoln	8	173
Middlesex	7	180
Norfolk	1	10
Ontario	1	6
Oxford	7	387
Peel	6	81
Perth	12	456
Peterboro	1	25
Simcoe	6	385
Waterloo	3	175
Welland	1	107
Wellington	1	40
Wentworth	8	500
York	2	250

Special Projects.—In Welland County, part of the area for which a surface outlet into the old Welland Canal feeder was provided this spring, will be tiled next summer. Other sections have been interested in securing machines for tile installation and still other prospects for similar activities are waiting development. In Pelee Island, considerable time was spent a year ago attending meetings, making surveys, and interesting parties in much needed drainage propositions. This year the machines have been busy the entire season. A similar project has been launched in Elgin County, which has made an output for tile yards possible, and good territory for machine operators. We hope to concentrate more effort on the development of similar districts.

Supervision of Installation.—An increase in the number of requests by farmers for supervision of the work of installation indicates their increasing interest in the securing of an efficient system, and perhaps no part of the work is more important. Money spent on tile and the construction of drains is worse than useless, as it discourages other interested parties, if the drains do not show results because of improper depths, poor junctions, unprotected outlets or reverse grades, and it has frequently happened that some one or other of these errors has to be corrected. The machine man is not antagonistic toward this inspection as he generally wants to do a good job and is glad of assistance. Sometimes it is not his fault. His plan may not be absolutely clear or unforeseen conditions arise when construction is started. The farmer is very much pleased that any such errors are set right, and the cause of drainage in the community is strengthened. This phase of the work has been made possible only by providing assistance in transportation facilities.

Ditching Machines.—During the summer, machine activities have been confined to a district near the Soo, where some one hundred and twenty-five acres were drained systematically for two parties. Operation ceased with cold weather with more work to do and prospects for another season's work in the same locality very good. Tile for this section has been our biggest trouble.

No clay tile near at hand can be obtained and an experience with a local firm making concrete tile was anything but satisfactory, and freight rates from distant points make shipments almost prohibitive. The ordinary farmer cannot afford to drain under these conditions. A solution of the problem has still to be met.

Short Courses.—During January and February, Short Courses were conducted at Guelph and Chatham, each of two weeks' duration. They were fairly well attended by machine operators, whose work has been followed up as far as possible this summer, as well as work completed by those who have attended former courses. This is appreciated by the operators, and helps to stimulate interest. Here again transportation facilities have made possible this extended assistance.

ONTARIO VETERINARY COLLEGE

With the opening of the term in the fall of 1922, the new building at Guelph was occupied for the first time. The building is erected on a corner of land which forms part of the Ontario Agricultural College property, but the institution retains its separate identity and separate administration. The building is large and well-equipped, and includes the required lecture rooms, laboratories, and administrative offices. Adjacent is a building which will serve as a hospital barn for treatment and observation of animal diseases, and for research work. It is believed that the removal of the College from the centre of a large city, where it has always been since the beginning, to this rural atmosphere is in accord with the present trend of veterinary science and will have beneficial results. It will permit of more thorough instruction in all classes of live stock, instead of giving preference to the horse, which veterinary institutions have always done. There will also be interchange of work between the Veterinary College and the Agricultural College, and the close proximity of the two institutions will react on social, sporting, and educational phases of college life.

For the last session, which ended April 30th, a total of 82 students were in attendance, of which 15 were in the first year class, 11 in the second year class, 22 in the third year class, and 34 in the senior or graduating class. Of the senior class, 33 were successful in passing the final examination and were graduated with the Degree of Bachelor of Veterinary Science (B.V.Sc.), conferred by the University of Toronto. During the present session which commenced on October 1st, 1923, a total of 70 students have been enrolled, of which 15 are in the first year class, 13 in the second year class, 15 in the third year class, and 27 in the senior or graduating class. Unfortunately the general depression and financial stringency prevented several students from enrolling this session.

The College is supplied with an excellent faculty and in addition to instruction on all subjects, it is now possible to carry out very considerable research and investigational work with reference to diseases which are causing great loss and perplexity to those who are engaged in different lines of live stock.

During the year considerable alarm was caused in a few rural districts by the sudden death of a considerable number of cows in some herds. As these reports came from widely separated points it was decided to make an investigation, and it was found that in every case sweet clover had been included in the diet of the deceased animals. Consequently, a thorough investigation of the effects of sweet clover feeding was made and a careful and detailed report submitted. The following conclusions were reached.

I. That the disease investigated is a new disease, and while simulating haemorrhagic septicemia and blackleg, is entirely distinct from these diseases.

II. That the disease is produced by a toxic substance which is present in mouldy sweet clover. There is much evidence that certain moulds are responsible for the formation of this poisonous principle.

III. That the toxic substance produces the disease by destroying or damaging the cells of important tissues and vital organs. This may result in haemorrhage, delayed coagulation of the blood, and destruction of the red blood cells.

IV. That there is no evidence to show that the feeding of good sweet clover hay or ensilage can produce the disease in question.

V. That the moulding of the hay and ensilage can be greatly reduced by observing proper methods of sowing and harvesting the crop.

Investigational work was also carried on along other lines.

PUBLICATIONS AND STATISTICS

The work of compiling agricultural statistics was carried on in co-operation with the Federal authorities. The results are published from time to time as completed.

The distribution of the Annual Reports has been continued and the following are the figures of the numbers printed for distribution:

Minister's Report	5,000
The Ontario Agricultural College	5,000
The Experimental Union	30,000
Agricultural Societies and Field Crop Competitions	19,000
Horticultural Societies	30,000
Vegetable Growers' Associations	5,000
Live Stock Branch	4,000
Dairymen's Associations	6,000
Stallion Enrolment Board	3,000
Agricultural Statistics	25,000
Fruit Growers' Association	4,000
Entomological Society	3,000
Beekeepers' Association	4,500
Women's Institute	40,000
Total	183,500

The following crop bulletins have been printed for distribution:

153	December, 1922	30,000
154	April, 1923	3,000
155	May, 1923	4,000
156	August, 1923	6,000

Other bulletins printed for distribution were:

231*	Vegetable Growing	12,000
252*	The Preservation of Food: Home Canning	25,000
274*	Sheep	8,000
291	Production and Marketing of Ontario Cheese	10,000
292	Farm Poultry	40,000
293	Feeding Young Live Stock	40,000
294	Grafting Fruit Trees	15,000
295	European Corn Borer	15,000
296	Sweet Clover	15,000
297	Colony Houses for Swine	12,000
298	Soil Survey	12,000
299	The Bacon Hog	60,000
300	The Care of Farm Implements	15,000
301	The Brood Sow	15,000
302	Insecticides and Fungicides	12,000
	Total	306,000

Circulars were printed for special distribution as follows:

42	Leading O A. C. Varieties of Grain	50,000

*New editions.

AGRICULTURAL SOCIETIES BRANCH

In spite of comparatively low prices for agricultural products, a condition which is intensified by high wages for farm help and its scarcity, while the farmer cannot purchase what he requires at a corresponding reduction, the Agricultural Societies of Ontario continue to do good work and make marked progress. This is the more satisfactory because, in the final analysis, they are dependent on weather conditions for the success or otherwise of their fall fairs and exhibitions. Every care may have been taken to insure the holding of a better exhibition than ever before, and yet, all the plans be upset owing to a downpour of rain on one or more days of the show.

In 1923 many Societies suffered heavy losses in gate receipts owing to continuous rain during the first half of the month of September, while most of those held on a later date were more fortunate. The Legislative grant of $10,000 to assist Societies which suffer losses in gate receipts, has been the means of tiding them over and enabling them to pay their prize money and other expenditure in full.

Apart from those who experienced wet weather, the Reports of the Agricultural Societies for 1923 are exceptionally optimistic in nearly every instance. Exhibits were numerous and good, and the attendance above the average. The use of automobiles enables people to travel with comfort considerable distances to fairs. Exhibitors also are beginning to use auto trucks to a greater extent than formerly for bringing their stock to fairs. This results in the animals being shown in better condition. The driving of cattle along the highways is almost prohibitive owing to the congested state of the roads and highways at exhibition time.

The regular Standing and Combined Field Crop and Threshed Grain Competitions are becoming more in evidence each year. Societies which have not yet taken part in them are realizing what a boon they are to the farmers of Ontario, and also an incentive to the production of cleaner and purer seed grain and potatoes to meet the demand that has arisen, not only in Ontario but elsewhere, for first class seed grown in this Province. Since these competitions were organized in 1907 there have been put in the estimates each year $28,500 by the Government for this work. Fifty-one thousand eight hundred and twenty-one dollars have been paid in prizes for grain and sheaves at exhibitions to the winners in the competitions during the last sixteen years. The Federal and Provincial grants during the same period for prize money to Societies amounted to $227,145, and as yet only a little over half of the Societies in the Province have undertaken this spendid remunerative and educational work.

The displays at the Canadian National and Central Canada Exhibitions and the Guelph, Ottawa, and Royal Winter Fairs showed to advantage the grain and potatoes grown by competitors in the Field Crop Competitions. At the Royal, more especially, the exhibit was more extensive and better arranged than at any exhibition on this continent or elsewhere.

HORTICULTURAL SOCIETIES.

The Horticultural Societies of Ontario show year by year that expansive growth which has characterized them from the time when they became separate organizations from the Agricultural Societies in 1906. Each year sees from twenty-five to thirty new Societies added to the list, each with its enthusiastic members striving to bring about improved conditions in the appearance of their rural and urban homes. When the returns for 1923 are complete there will be

an army of 50,000 men and women ready to co-operate with their municipal councils in beautifying their towns and villages, and removing that which is offensive to the eye. In some places, municipal councils have requested the Horticultural Societies to take charge of the parks and roadways and improve them in accordance with their own plans, making grants to the Societies for this purpose. Much good work is also done by Horticultural Societies in cleaning up and restoring the headstones in rural cemeteries, which had fallen and were otherwise being neglected. Each year, too, sees an addition to the number of Township Horticultural Societies organized, and this tends to improvement of the surroundings of farm homes and buildings, which so often stand out bare, unpainted and unadorned by shrub, vine, or tree on the landscape.

ONTARIO VEGETABLE GROWERS' ASSOCIATION.

The Ontario Vegetable Growers' Association continues to do good work in the improvement of the home surroundings of their members through the three acre garden competitions. In judging these competitions, twenty per cent. is allowed for the value of the crop and eighty per cent. for neatness and cleanliness of the crop and home surroundings. The Field Crop Competitions in 1923 were in tomatoes, melons, potatoes, celery, onions, and cabbage. One of the best vegetable exhibits ever put up at the Canadian National Exhibition, was staged by a competition between the different branches throughout the Province, for which substantial prizes were offered by the Directors of the above Exhibition. The Vegetable Growers of Ontario are heavily handicapped by the tremendous importation of garden products from the southern and western States that come into our markets by the train load. They feel that something should be done to prevent this unfair competition from a country that has raised the bars so high that it is impossible for us to ship our surplus products into their markets.

ONTARIO PLOWMEN'S ASSOCIATION.

The membership of the Ontario Plowmen's Association is increasing from year to year. The farmers in the different sections of the Province are becoming more interested in good plowmanship and the better cultivation of the soil, and, as a consequence, larger and finer crops are being produced. Local Plowing Matches were held by the branches, and the competition was always keen. Large crowds of interested spectators were in evidence at all these plowing demonstrations and each branch put up a substantial and attractive prize list, and all the classes were well filled. One pleasing feature of these local matches is that a large number of young farmers and lads in their teens take part and the work done by them shows a marked improvement on that of other years. The Provincial Plowing Match, Tractor and Farm Machinery Demonstration was held during the third week of October at Sarnia. The attendance during the three days of the demonstration was estimated at over 45,000. The machinery display was the largest ever held, with the exception of tractors. During our earlier Provincial Matches a score of companies, manufacturing these machines were in evidence. There has been a gradual elimination of inferior types of machines and less than half a dozen companies manufacturing tractors were in evidence at our 1923 demonstration. Marked improvement was shown in the work done by tractors that are being perfected from time to time and are standing the test of years.

LIVE STOCK BRANCH

Assistance and supervision of exhibits of Ontario pure-bred stock at large International Shows in United States was again undertaken during the year of 1923. These exhibits were remarkably successful as is shown by the following statement of prizes won:—

NATIONAL DAIRY SHOW WINNINGS, SYRACUSE, N.Y.
OCTOBER 5TH-13TH.

HOLSTEINS.

Firsts	1
Seconds	1
Thirds	1
Fourths	3
Sixths	3
Eighths	1
Ninths	3
State Herd	First

NOTE—The first prize Holstein bull, 18 months and under two years, was bred in Ontario, and last year was Junior Champion at the National Dairy Show.

JERSEYS

Firsts	2
Seconds	2
Thirds	1
Fourths	3
Sixths	3
Tenths	10
State Herd	First

It will be noted that the State Herd prizes for Holsteins and Jerseys were won by Ontario exhibits. This herd consists of ten animals entered by a State Breeders' Association.

INTERNATIONAL LIVE STOCK EXPOSITION WINNINGS, CHICAGO, ILL., 1923.

CLYDESDALES.

In Clydesdales, Ontario was represented by eight horses from two exhibitors, winning:—

Firsts	1
Seconds	1
Thirds	3
Fifths	1

Also Senior and Grand Champion Stallion.

SHEEP.

In sheep, Ontario was represented in five breeds by ten exhibitors, winning:—

Firsts	34
Seconds	37
Thirds	18
Fourths	12
Fifths	14
Championships	11
Reserve Championships	9

In addition, Col. Robert McEwen, London, won for the second time in succession, the Grand Championship for the best car lot of fifty Market Lambs.

Swine.

In swine, the Champion Berkshire Boar and Champion and Reserve, Champion Berkshire sows were bred and raised by P. J. McEwen, Wyoming, Ontario, being sold to an American exhibitor a short time prior to the show.

Cattle.

In cattle, Ontario was not represented by Ontario Exhibitors, but the Champion Shorthorn Heifer was an Ontario bred animal, being bred by Gordon Auld, Guelph.

Note—At these two International Shows, the competition is so keen, and the quality of the stock so high, that to stand in the prize money is considered a very high honour.

LIVE STOCK IMPROVEMENT CAMPAIGN.

This may be divided into certain lines of work:—

1. Advertising.
2. Intensive work by Fieldmen, in counties where Local Live Stock Improvement Committees are formed.
3. Assistance to shippers where scrub bulls are sold, to be replaced by pure-breds.
4. Bonus to men who have not formerly kept a pure-bred bull, where a Local Live Stock Improvement Association is formed.
5. Organizing and equipping, and sending through Ontario, a "Better Live Stock Train."
6. Attending meetings of "Live Stock Improvement Committee," and working with local committees and fieldmen of the Live Stock Branch.

Active work has been carried on in the following counties during 1923: Essex, Oxford, Perth, Peel, and Waterloo.

In addition to the above work has been continued in other counties throughout the Province.

Essex. Essex campaign was commenced in three townships and a number of pure-bred bulls have replaced scrubs during the past year. Bonuses were paid in Essex County to buyers of pure bred bulls for the first time, amounting to $423.00, and the work in this county looks very encouraging for the spring work in 1924.

Oxford. Oxford County again carried on an active campaign, and we are pleased to report that from a census taken in 1921 when the campaign was started in Oxford County, 559 grade owners were listed, and at present out of this number only 101 are still owning grades. Breeders in this county are now looking on the campaign very favourably, and are ready to co-operate by securing a good pure bred bull to replace inferior one. In 1923, bonuses amounting to $166.93 were paid to men purchasing pure bred bulls for the first time.

Peel. The campaign in Peel County has been very gratifying. In one township there were fifty per cent. or over using grade bulls when the Campaign was started, but at present there are only eighteen per cent. In another township there were twenty-eight per cent. grade bulls when the campaign started and that has been reduced to eleven per cent. in one year's work. Bonuses have been paid in Peel County amounting to $237.20.

Perth. The campaign in Perth County has been progressing favourably in 1923. Bonuses amounting to $367.95 were paid to purchasers of pure bred bulls for the first time.

Campaign work in other counties is being undertaken.

Better Live Stock Train.

During the months of March and April, 1923, a "Better Live Stock Train" toured Ontario, which train consisted of sixteen cars as follows: One feed car; one car of beef cattle, representing market classes; one car of dairy cows; five cars of bulls for sale; one car devoted to sheep, wool and Canadian made woollen fabrics; two cars of swine, representing market grades and cured Wiltshire sides made from hogs of each grade, and breeding stock of both sexes for sale; one car for lecture purposes; one canopy car for demonstration work; one car of poultry and eggs; one diner; and one sleeper.

The staff and equipment for the train was supplied by The Ontario and Dominion Departments of Agriculture; Ontario Live Stock Associations; Industrial and Development Council of Meat Packers; Canadian Pacific, and Canadian National Railways.

During the itinerary of the train, members of the staff delivered lectures as follows: Eighty-six Cattle Lectures; thirty Sheep Lectures; forty-eight Swine Lectures; and sixty-four Poultry Lectures. In addition to these regular lectures, talks were given to school children visiting the train.

Farmers in various parts of the Province purchased stock as follows:— Eighteen Shorthorn bulls; one Ayrshire bull; four Holstein bulls, and two Angus bulls, in a great many cases these were purchased by men who had formerly used a grade bull. In addition, thirty-seven Yorkshire boars; eighty-two Yorkshire sows; four Tamworth boars; four Tamworth sows, and one Berkshire sow were sold. This stock was all high class, and should tend to improve the quality of stock on our Ontario farms.

The attendance at the train was very encouraging as will be noted by the following memorandum:—

	Average Attendance		
	Forenoon	Afternoon	Evening
31 All-day stops	180	420	52
9 Stops	192	384	....
10 Stops	475	....	....
1 Stop	....	....	450
1 Stop	....	350	....
9 Stops	....	584	86

Total average attendance, forenoon 241
Total average attendance, afternoon 441
Total average attendance, evening 69
Total attendance 36,976

Stallion Enrolment.

This work is divided under two votes, "Stallion Enrolment" and "Premiums to Pure Bred Stallion."

The Stallion Enrolment Act was passed in 1912, and the first enrolment of horses took place in the year 1913. There have been a few amendments to the Act, one in 1914 which added "For Sale" before a stallion could be lawfully sold, and another amendment passed shortly after which made "Inspection compulsory," and "Grade stallions to be refused enrolment if unsound, after 1916, and sound grades after 1918." The forms of certificates issued in 1923

are as given below, by which you will see that the highest class horses in the Province are given, "Approved A I" certificates. The fair horses which are sound, or good horses which are too good to turn down, even not quite sound are given "Passed Form I" certificates. Really unsound horses are given "Defective Form 2" certificates, and undesirable horses are given "Form 3" certificates.

Regular inspection of stallions takes place each year during the month of October, notes regarding same, and itinerary of inspectors is printed in the annual Enrolment Report, which is mailed to owners of stallions, so that the stallion owners know that inspectors will be at a certain place at a certain time.

Premiums to Pure Bred Stallions.

Are paid to premium horses according to a certain schedule. The one given in 1923 is as follows:—

Number of In-foal Mares	Number of Stallions Qualifying	Amount of Premium Granted
15 to 20	6	$15 00 each
21 to 30	24	20 00 "
31 to 40	24	35 00 "
41 to 50	24	50 00 "
51 to 60	13	65 00 "
61 to 70	16	75 00 "
71 to 80	7	100 00 "
81 to 100	3	125 00 "
101 and over	1	170 00 "

SHEEP WORK.

This work is to encourage the use of "Better Sires" in the Province, by placing in certain strategic points in the best sheep counties, rams in clubs. This is a development of the work started in 1916 when flocks were put out on shares, but which has since been discontinued in preference of Ram Clubs.

Rams are placed with club members under the following agreement:—

(1) The flock owner will be furnished a pure bred ram of good quality, to be used by him for the season of 1923 and 1924, to be exchanged for another pure bred ram for the season of 1925 and 1926.

(2) The ram used for the season of 1923 and 1924 shall be delivered to the Live Stock Branch the fall previous to the breeding season of 1925.

(3) The flock owner agrees to forward a report beginning fall 1924 and continuing until the fall of 1926, said report to be made to the Director of the Live Stock Branch, and to give the following information:—Approximate date of lambing; success of lambing with number of lambs of either sex; date of shearing; date of weaning; lambs of either sex sold; weight and grade of wool sold, beginning spring of 1924, and any other information which may be of general interest.

(2) The flock owner agrees to dip his flock at least once a year; to dock all lambs at the proper time; to castrate all male lambs; and to co-operate with the other flock owners under this agreement in making an annual club shipment of wethers belonging to this flock to some central market. The dipping, docking and castrating will be done by the Dominion Live Stock Branch, co-operating with the agricultural representative for the county, and the agricultural representative will co-operate with the flock owners in order to arrange a shipment most satisfactory to the owners of the lambs.

(5) In case of failure on the part of the flock owner to comply with conditions of agreement, the ram furnished by the Live Stock Branch may be withdrawn by the branch.

The co-operative shipment of lambs to a central market encourages the flock owner to try and produce the correct type of market lambs.

Simcoe Ram Club.

A car load of such lambs was shipped from the Simcoe Club on September 12th, 1923. These lambs while not in as high condition as could be desired, were of the correct type with few exceptions and topped the market for the day at 13 cents. The cost of marketing including freight, feed, yardage, and commission, totalled 90 cents per cwt. on the Toronto weights, making a net return to the farmer of $12.10 per cwt. The average shrink in weight from Alliston to Toronto was five pounds per lamb. The farmers concerned were very well satisfied with the results obtained.

Middleville Ram Club.

Lambs from the Middleville Ram Club were sold to a local buyer in 1923. The price received netted the farmers nearly 10 cents, as there were a very small number of cull lambs. Included in the lot were forty-five prize lambs at the Middleville fair, 167 choice lambs, forty-two common lambs (good lambs only a little too heavy), and twenty-five cull lambs. The judges who judged the lambs at Middleville stated they were 100 per cent. better lambs than were shipped in 1922, and were quite free to admit that they were better lambs than any previously sent to Toronto.

Eganville Ram Club.

Sold 1923 to:					
Swifts—	206 head—	16,860 lbs., at	$11.75		$19,981 04
	1 head,	60 lbs., at	10.25		6 15
	9 head—	500 lbs., at	8 00		40 00
Kelly —	3 head—	240 lbs., at	1 50		3 60
	1 head—	140 lbs., at	5 50		7 70
	1 head—	120 lbs., at	5 00		6 00
	221				$2,044 49
Expenses Toronto:					
Freight				$59 83	
Insurance				8 84	
Feed and yardage				26 84	
Commission				22 60	
Cheque tax				80	
Total					118 91
Cheque amount					$1,925 58
Eganville expenses—$13.43					13 43
Net proceeds to farmers					$1,912 15

Expense per 100 lbs., selling weight, 80 cents.
Selling prices Toronto, $11.75, $10.25, $8.00, $5.50, $5.00.

BACON HOG CLUBS.

The work in connection with bacon hog clubs during 1923 has been very gratifying. These clubs are formed under the supervision of the Agricultural representative, and must consist of at least ten members owing twenty breeding sows. Up to the present seventy-seven clubs have been approved, in counties as follows:—

County	No. of Clubs	County	Number of Clubs
Brant	1	Huron	3
Dufferin	1	Oxford	1
Essex	14	North Simcoe	2
Grey	27	South Simcoe	1
Haldimand	4	Wentworth	11
Halton	8	York	4
		Total	67

CO-OPERATIVE CAR SHIPMENTS OF LIVE STOCK.

This is called our co-operative shipments of live stock to Western Canada and Northern Ontario. The table following will give an idea of the services rendered to Ontario Breeders shipping to Western Canada for the years 1908 to 1923 inclusive:—

NUMBER IN EACH SHIPMENT.

Year	Horses	Cattle	Sheep	Swine	Total
1908	22	74	14	15	125
1909	25	70	84	4	183
1910	39	51	36	7	133
1911	58	51	51	18	178
1912	51	45	24	20	140
1913	47	71	107	21	246
1914	49	97	34	20	200
1915	28	104	76	8	216
1916	59	185	100	22	366
1917	70	269	196	15	550
1918	67	250	180	4	501
1919	24	154	154	4	336
1920	18	110	37	6	171
1921	1	37	19	5	62
1922	3	18	6	21	48
1923	6	32	9	28	75

LOCAL POULTRY ASSOCIATIONS.

In this connection there is the assisting of Local Poultry Associations by recommending annual grants, supplying judges and lecturers, etc., and in 1923, assistance was given as follows:—

Number of grants paid to poultry associations during the fiscal year of November 1, 1922 to October 31, 1923	60
Amount of grant paid to each association	$50 00
Total grants paid	$3,000 00
Number of judges supplied to poultry associations	70
Number of lecturers, demonstrators, etc., supplied to poultry associations	18

GRANTS TO ASSOCIATIONS HOLDING SALES OF PURE-BRED STOCK.

Belleville District Holstein-Friesian Breeders' Club	$100 00
Brantford District Holstein-Friesian Breeders' Club	100 00
Caledonia Shorthorn Breeders' Club	100 00
Cobourg District Holstein-Friesian Breeders' Club	100 00
Durham County Shorthorn Breeders' Club	91 00
Durham County Holstein-Friesian Breeders' Club	93 00
Elgin Shorthorn Breeders' Association	100 00
Elgin County Pure-bred Holstein-Friesian Breeders' Club	100 00
Grenville Holstein-Friesian Breeders' Club	100 00
Grey County Shorthorn Breeders' Club	72 00
Guelph Fat Stock Club. (Shorthorns)	100 00
Huron County Live Stock Breeders' Associations. (Shorthorns)	100 00
Lambton County Live Stock Breeders' Association. (Shorthorns)	96 00
London District Pure Bred Holstein-Friesian Breeders' Club	100 00
Kingston District Holstein-Friesian Breeders' Club	90 00
Norfolk Holstein-Friesian Breeders' Club	100 00
North Bruce Breeders' Club. (Shorthorns)	81 00
North Ontario Shorthorn Breeders' Club	45 00
Ontario Hereford Breeders' Association	100 00
Ontario Aberdeen Angus Association	100 00

Oxford Holstein-Friesian Breeders' Club	100 00
Peel County Shorthorn Breeders' Association	87 00
Peninsular Pure Bred Live Stock Association. (Short and Angus)	100 00
Perth County Shorthorn Breeders' Association	100 00
Perth District Holstein-Friesian Breeders' Club	100 00
Peterboro County Shorthorn Breeders' Association	90 00
Victoria County Hereford Breeders' Club	84 00
Victoria County Pure Bred Stock Association. (Shorthorns)	87 00
Victoria Holstein-Friesian Breeders' Club	63 00
Waterloo County Holstein-Friesian Breeders' Club	100 00
Western Ontario Consignment Sale. (Shorthorns)	100 00
Western Ontario Consignment Sale. (Shorthorns)	100 00
Number of associations paid grants during the fiscal year, November 1st, 1922, to October 31st, 1923	32

Payment of grant is reckoned on the basis of $3.00 per animal sold, but the total grant does not exceed $100.00.

Whenever asked, the Ontario Live Stock Branch, sent out inspectors, to inspect stock offered for sale. This is to encourage breeders to only place high-class animals in the sale.

GRANTS TO HORSE SHOWS.

Bradford Horse Show	$68 50
Bright Spring Horse Show	50 00
Cobourg Horse Show	1,000 00
Drayton Spring Horse Show	50 00
Elora Horse Show	59 25
Elora Horse Show	53 25
Huron County Horse Show	75 00
Linwood Horse Show	50 00
New Hamburg Spring Horse Show	50 00
Ottawa Riding and Driving Club	56 00
St. Clement's Horse Show	62 50
Toronto Open Air Horse Show	300 00
Number of associations paid grants during the fiscal year of November 1st, 1922, to October 31st, 1923	12

INSTITUTES BRANCH.

During the past year the Institutes Branch furnished speakers for 150 meetings planned for by Boards of Agriculture. At seventy-five of the places visited a lady speaker was provided to address separate sessions for the Women's Institutes in the afternoon and joint meetings in the evening. Up-to-date practices in agriculture covering lines followed in the districts concerned were dealt with by practical farmers. Among the lines covered in the addresses given were the following:—

The Dairy Industry in Canada.
Beef Cattle and Milking Shorthorns.
Field Crops and Rotations.
Seed Control Act and Inspection work.
Seed Selection and Soils in Their Relation to Crop Rotation.
Root Culture, Mangels and Turnips.
Potato Growing for Commercial Purposes.
Co-operative Buying and Selling.
The Selection of a Laying Hen (demonstrated).
Care and Feeding of Poultry for Profit.
Bee-Keeping.
Clovers, The Key to Successful Farming.
Green and Barnyard Manures, Their Care and Application.
Selection, Care and Feeding of Horses, Cattle, Sheep and Swine.

The following topics were dealt with by the lady lecturers:—

The Standard of Efficiency for Institute Members.
Rural Problems and How to Meet Them.
Women's Responsibilities to Herself, Her Family and Mankind.
Rural Schools, Past, Present, and the Ideal of the Future.
What the Women's Institute has done for One Rural Community.
Women's Institutes of (a) England and Wales.
(b) Bonnie Scotland.
The Place and Power of Young Womanhood in the New Era.
Helping Boys and Girls to Find their Right Life Work.
Labour Savers for the Housewife.
Our Way of Making Housework Easier.
Nurture Stronger than Nature.

The discussions following the addresses given by the speakers sent out by the Department were a valuable feature at most of the meetings.

The number of special meetings arranged for by the agricultural representatives has resulted in a lessening of the demand for assistance from this branch at regular series of meetings such as reported above.

Lecturers and demonstrators were furnished for a number of special meetings and Live Stock Judging Classes planned for in co-operation with the agricultural representatives.

There is an increasing interest on the part of the farmers generally in quality production and this necessity was emphasized at practically all meetings.

WOMEN'S INSTITUTES.

The Women's Institutes continue to be a forceful, educational factor for women in the rural districts along lines which are of every-day practical value. The regular monthly meetings consist of papers, addresses, discussions, and the study of bulletins, reports and standard works bearing upon women's responsibilities—housing, feeding, clothing, essentials to health, educational problems, and other matters with which women are concerned. Some attention is also given to the lighter forms of agriculture, by which women and girls are adding materially to the farm income, a very important matter in a period of deflation in values of farm products.

Through the co-operation of the members of the institutes, much is being done in community service, betterment of schools, establishing libraries, providing rest-rooms, assisting in health campaigns, entertainments, amusement, social activities and other features in which the whole community is concerned.

The members of the Institute have, through undertaking and carrying to a successful issue community work along many lines, developed a keen sense of responsibility towards problems and undertakings which are the concern of and effect the whole people.

Nearly one thousand women's institutes have been active throughout the Province during the past year, and while all devote their attention to women's work and responsibility in general, no two organizations follow the same programme. The work of each branch is voluntary, and quite independent of control outside the membership. This independence of action has resulted in a development of local talent, and the utilization of the same together with other local resources to a marked degree.

The service rendered to the institutes by the Institutes Branch of the Department of Agriculture in literature, lectures, instructors in demonstration-lecture courses, information as to what the institutes generally are doing throughout the Dominion and other countries, together with very small grants, is much appreciated by the women of the rural districts. Through the various services, the administrative and instruction staff are placed in a position to encourage the members to undertake work on their own initiative and thus develop a keen sense of power and responsibility. This Department appreciates the co-operation of local organizations in forming classes and planning for meetings which are a great factor in giving to the rural districts up-to-date information along lines in which women are vitally interested. During the past year Demonstration Lecture Courses were given as follows:—

	No. of Courses	Class Membership
Food Values and Cookery	70	2,709
Home Nursing and First Aid	88	2,932
Sewing and Millinery	77	1,472
Miscellaneous	5	235
	240	7,348

Each of these courses embraces ten lessons, taking from two to three hours each, the following extracts from letters illustrate the appreciation of those attending:—

"Words fail me in expressing how much Miss————has done for our Institute. Her lectures and demonstrations were so clear and well given that each one was able to grasp the meaning intended and many points about which we were formerly in doubt were very clearly and cheerfully cleared away. We shall endeavour to prove ourselves much better home nurses."

"The unanimous opinion of a class of sixty-three in home nursing and first aid, is that the knowledge given us and the practical demonstrations which we watched and took part in, and the association with each other and with our remarkable demonstrator, has been and will be of inestimable value to us. The zeal, enthusiasm, and noble ideals of our nurse were contagious. Members of the senior and junior institutes, women from the U.F.W.O. representing all the churches here, and all the parties in politics, were brought together and bound together in newer and stronger friendship in following a strong and true leader who taught them to be more useful, more helpful in home and community."

"Every day in every way we liked her better and better. She not only knew her work perfectly, but she knew how to give instruction to twenty-five different types of girls all at one time. She has helped my Guide Company more in fifteen days than anything else has in fifteen years."

"The sewing class conducted by Miss———— is a fine success. She is very popular with her class of women and girls. Their work is up-to-the-minute in style and their training is

giving them a foundation to build on for neatness and the correct methods. They were all having difficulty setting in sleeves, but their instructor kept them at it till they knew the right and wrong of it."

"Two of our girls were unable to take the millinery course on account of illness. However, Miss———— was kept quite busy teaching the rest of us, and we have an array of very nice hats to show that the course has been of great value to us. We are certainly proud of what Miss———— was able to teach us in two weeks."

In addition to the regular Demonstration Lecture courses, the Women's Institute Branch furnished resident instructors for three months' courses to girls at eight centres during the winter of 1923, and plans have been made for twelve such courses to be given during the winter of 1924. In addition to the resident instructor giving a course in "Foods and Cookery," special instructors are provided in "Home Nursing and First Aid," "Sewing," and "Millinery," and at a number of courses special lectures are given in agriculture for women; how to organize community work, and physical training. At most of the centres, members of the class organize themselves into Junior Women's Institutes for future work.

Many departments of Government service and administration have come to value the co-operation of the Women's Institutes, which enables those in charge to render effective service at a minimum of labour and expense.

Conventions were held in October and November at Fort William, North Bay, Ottawa, London, and Toronto. At these conventions planned for through the co-operation of the Institutes Branch and the Federated Women's Institutes of the Province reports were given on the activities of the year; a survey was made of the conditions, needs, and possibilities; and literature, service available, and programmes for future action were outlined.

Standing Committees were appointed for the following lines of work:—

CONVENERS.

AGRICULTURE—Mrs. I. V. Leggett, Newboro.
HOME ECONOMICS—Olive Cruickshank, Macdonald Institute, Guelph.
HEALTH AND CHILD WELFARE—Dr. Margaret Patterson, 97 Walmer Road, Toronto.
IMMIGRATION—Emily J. Guest, 9 Evelyn Cresent, Toronto.
EDUCATION AND BETTER SCHOOLS—Katharine F. McIntosh, Brampton.
PUBLICITY—Ethel M. Chapman, Department of Agriculture, Toronto.

The summarized report of what the institutes are doing, as given below, shows what a wide and important field is being covered.

SOCIAL LIFE AND NEIGHBOURING.—Perhaps the most important branch of the work of the Women's Institutes is of a nature that cannot be listed as a definite project, but which rather goes to establish a spirit of neighbourliness throughout the community. For example, in one case a woman who was not an institute member was taken ill suddenly and ordered to go to the hospital. The institute member came in, did some necessary sewing of articles which she had to take with her, and spent two days canning her supply of fruit which would otherwise have spoiled. In another place a family was quarantined for diphtheria just a short time before Christmas. The institute knowing that Santa Claus could not very well visit the children in a quarantined house sent along material to fill their stockings. This spirit of sympathetic friendliness is expressed in many ways, such as sending flowers to sick and shut-in members of the community, arranging an annual grandmothers' meeting, or an old settlers' picnic, or assisting a family that has been burned out. Apart from the immediate results, the influence of this work is readily seen in community co-operation in relation to school and church matters and should be valuable even in the development of co-operative farm business.

The institutes are active in creating a live, wholesome social life in the community. A great number have established or assisted in establishing parks, skating rinks and community halls, and particularly in seeing that young people's gatherings in community halls are properly chaperoned. This year, several institutes have brought University Extension courses to the neighbourhood. A number have organized singing classes. Possibly the most general work of this kind this year has been the organizing of a series of inter-community debates throughout a whole district or county. Among the more individual undertakings, there are institutes building community halls, providing their halls with a piano, a furnace, or stage equipment, laying sidewalks in their village, or placing lights at street corners. One institute sixty miles from a railway has recently lighted their village streets. Another branch in the north has organized and conducts annually a most successful agricultural fair. One institute in a fair-sized town is maintaining a club room for girls who work in the factories and whose homes are not in town. They endeavour to make this club fill the place of the Y.W.C.A. so far as possible.

Relief Work and Charities: Closely related to the effort for a better social life is the local relief work and the outside charities carried on by the institutes. In some of the northern districts, particularly in the sections which suffered from the fire last year, the local institutes are endeavouring to provide clothing for families in need. The department brought this matter to the attention of the more prosperous institutes of Southern Ontario with the result that donations of second-hand clothing have been sent to the northern institutes, and many of these have written us that all their needy cases have beep provided for. The institutes all over the Province contribute generously to the County Hospital, Children's Shelter, and the House of Refuge. One institute through a garden party, a number of socials and a food sale, raised one thousand dollars for the hospital in their county town. Many branches are assisting the institute for the blind and similar institutions. Donations of money and such articles as canned fruit have been sent to hospitals in Toronto. But perhaps more noteworthy than any of this is the relief work going on quietly in home communities, such as re-equipping the home of a family that has been burned out, giving a crippled boy a course at business college so that he would be equipped to earn his living; providing glasses for a poor child in need of them; paying the hospital expenses of a child suffering from adenoids, and keeping on hand a supply of bed linen and other sick-room equipment for emergency cases in the community. Several institutes in the north keep a baby's outfit on hand to be given, as it is needed, in a poor home.

The School and Child Welfare: The institutes continue to provide their schools with equipment which they consider necessary to the health and comfort of the children and which is not supplied by the school board, such as sanitary drinking fountains, wash basins, soap and towels, hot lunches during the winter months, milk for undernourished children, playground equipment, good pictures, gramophones, etc. This year they are rather making a drive on seeing that the school is provided with a First-Aid kit. The institutes have always been leaders for, and enthusiastic supporters of medical school inspection and the school nurse. In sections where a permanent nurse has been engaged by the municipality, the institutes are in some cases contributing to her support by providing for her transportation. In other cases they help her with the follow-up work. Many institutes have provided medical treatment for poor children needing it; milk for undernourished children; glasses for children suffering from eye trouble, etc. A number have organized school dental clinics.

Perhaps the most important feature of the institute school work, however, is the endeavour to interest the whole community and cultivate a public opinion for good schools. It was a popular piece of work this year to arrange a "A Better School Night" to which parents, teachers, members of school boards and all ratepayers were invited to enjoy a social evening, and discuss school matters. Many institutes give prizes to school children for regular attendance, and general proficiency. One institute, finding that a number of their children going to a strange town to write on their entrance examination suffered from nervousness, approached the inspector and had arrangements made to have the entrance examination put on nearer home.

Many institutes have assisted school fairs in contributions and service.

Libraries and Cemeteries: The institutes continue to take an active part in organizing and building up libraries, a great many of them giving, annually, a donation to the local library for the purpose of buying new books. In one case this year the institute bought a building, had it equipped with shelves for books, and personally did the painting and cleaning necessary to make it an attractive library building. The Inspector of Public Libraries reports that "The institutes have assisted more than any other agency in promoting interest in travelling libraries. Many hundred of communities have benefited by travelling libraries through the initiative of Women's Institutes." These travelling libraries are proving of inestimable benefit to purely rural communities, and particularly to those in the northern part of the Province. One institute has presented the community with a five thousand dollar library as a soldiers' memorial.

In the care of cemeteries, the institutes still maintain a keen interest. While a few years ago they did much of the work of cleaning up old cemeteries themselves or by organizing a community "bee," they are now getting the work better organized so that subscriptions can be taken from plot owners and a caretaker hired to do the work.

For Better Homemaking: The programmes from institutes throughout the province show that the women are doing some very practical study and research work for themselves along homemaking lines. At the same time the demand for demonstration lecture courses by well qualified teachers in Food Values and Cooking, Home Nursing and Sewing is steadily increasing.

Many of the pupils at these courses drove along distances after doing their work at home in the morning. One girl milked five cows every morning, drove nine miles to begin classes at 9.30, and never missed a day. Another girl since taking the sewing course has earned her living by doing dressmaking and children's sewing in her own neighbourhood.

A number of institutes are assisting in developing the Homecraft Department at their county fairs, both by giving prizes and encouraging a large showing of exhibits. At one fair this year, the institutes of the county worked together to put on an extensive exhibit of arts and crafts carried on by farm women in their homes.

Another interesting project has been home beautification, the institutes of the district endeavouring to make their whole countryside more attractive by each member improving her own home surroundings through planting shrubs, trees, and perennial borders.

A Typical Institute Programme.—Perhaps a clearer idea of the work of the institutes can be given by outlining briefly the programme undertaken by one or two institutes.

One branch through sales of home-made baking and a series of social gatherings, raised over $700 in one month. $400 of this was given to the public library, $250 went to improve the cemetery, the balance with a considerable sum added to it was invested in playground equipment for the school, and in gravelling the school yard. This yard had been in a very muddy condition and when the institute, through the woman school trustee brought, this to the attention of the board, the board agreed to pay for the gravel if the institute would bear the expense of hauling it—an interesting piece of community co-operation.

Later, the case of a destitute family with a sick child in northern Ontario was brought to the attention of this institute through a Public Health nurse appealing to the Department. The institute immediately got together a shipment of food and clothing to tide the family over the winter.

Another institute which works through a number of special committees, is an outstanding example of how comprehensive an institute programme can be. The School committee met the new teachers upon their arrival at the town and found temporary boarding places for them, arranged a reception for the teachers and parents, and provided a piano for the school. The Home Economics committee introduced sewing in the public school and gave prizes for the best work done. The committee on Public Health assisted the Public Health nurse at her baby clinics, sent home-cooked food to a tubercular patient, provided bed linen and other supplies for a patient who was just a new arrival in the town, arranged for addresses on dental hygiene and goitre by a dentist and doctor at the regular meetings, and when the school nurse found a number of children who were under weight, provided milk for those who could not afford it and gave a prize to the child who gained the most from drinking milk during a certain time. The committee on Immigration visited new families, introduced them to neighbours and to the public health nurse and put them in touch with the church of their own religious denomination. This type of programme is being carried out more or less fully by hundreds of institutes throughout the Province.

DAIRY BRANCH.

The importance of dairying as a producer of wealth and a means of ensuring a steady income to the farmers, has been again forcefully demonstrated during the past year, and the majority of dairy farmers are aiming to increase their output, while many who have heretofore treated dairying as a minor operation are now planning to make this the major operation on their farms.

In more firmly establishing the dairy industry in this province, the great need is to eliminate the small percentage of inferior cheese now produced and to materially increase the proportion of high quality butter made in our creameries.

Of the cheese graded by the Federal Grading Staff during 1923, 85 per cent. was placed in first grade, a considerably higher percentage than in any other province, and Ontario cheese enjoys a favourable reputation in the overseas trade. The great need, however, is to eliminate if possible all inferior grades in our export product. The one essential in attaining this object, is to secure high-grade raw material, since it is impossible to produce high quality cheese when even a small percentage of the milk used is of inferior quality, so far as sanitary conditions and acidity are concerned; and it is desirable also to increase the average butter fat content.

Ontario can easily over-produce if the quality is low, but there is no danger of too great a volume, provided the quality is raised and kept to a uniform high standard.

The record of the factory output for 1923 is given below:—

	Pounds	Value
Cheese	99,500,000	$18,905,000
Butter	52,000,000	17,680,000

When we add to the above the value of the milk and cream used for human consumption, the amount used in condenseries, milk powder factories, the ice cream trade, as well as that made into butter on the farm, we have a total of $75,085,000 for the year of 1923.

The following comparative statements for the years 1921, 1922, and 1923 will be found of interest:—

		No. of Factories	Pounds	Value
Cheese	1921	869	103,432,696	$18,676,380
	1922	845	92,707,059	15,036,980
	1923	805	99,500,000	18,905,000
Butter	1921	211	43,471,532	16,680,247
	1922	212	51,633,070	18,218,629
	1923	250	52,000,000	17,680,000
Condensed Milk, powdered	1921	....	....	8,500,000
Milk, Casein	1922	....	....	5,500,000
	1923	....	....	6,500,000
Disposed of by factories, creameries, condenseries and milk poweer plants in the form of ice cream, milk, buttermilk, cream, whey, soft cheese, etc	1921	....	....	5,000,000
	1922	....	....	7,000,000
	1923	....	....	7,000,000
Farm Dairy butter, milk used on farms, town and city milk supply, ice cream, etc	1921	....	....	25,000,000
	1922	....	....	24,000,000
	1923	....	....	25,000,000
Total value	1921			$73,856,527
	1922			70,085,238
	1923			75,085,000

It will be noted that the output of cheese increased by 7⅓ per cent. in 1923, while the production of butter was about the same. The average wholesale price for cheese was 19 cents per pound, an increase of 2¾ cents per pound over 1922. The price of butter averaged 34 cents, a decrease of 1¼ cents per pound compared with the preceding year.

Instruction.

The staff of instructors consisted of two chief instructors, one chief grader, thirty-four cheese factory instructors and milk testers, four creamery instructors, one assistant grader, one part-time grader and instructor, two assistants in the butter grading station to make tests for moisture and yeast and mould counts, four checkers-up of milk and cream tests.

The cheese factory instructors devoted considerable of their time to making tests of composite samples of milk in the cheese factories; and payment was based upon the results. That the work of instruction was carried on effectively, even though considerable time was spent in testing milk, is shown by the high quality of Ontario cheese throughout the season. The fact that each cheese factory instructor was informed from week to week as to the factories which were not grading up to the standard, enabled them to concentrate on the factories most in need of assistance. The makers, generally speaking, are able to make high quality cheese provided the raw material is delivered in good condition. They are handicapped in many instances, however, by poor curing rooms. The failure to provide suitable curing facilities either by the manufacturer or merchant has been a detriment to the cheese industry. Considering the handicap of the small factories with inadequate facilities for holding cheese, the record of the past season is very satisfactory from the standpoint of the instruction service.

The Dairy Standards Act.

The operation of the Dairy Standards Act has resulted in greater care being given the milk on the part of the producers, for it has been generally recognized that in order to get a correct test, the milk must be well taken care of. Greater care has also been given to the composite samples at the factories, with the result that the testing has given general satisfaction.

Considerable opposition still exists to the Dairy Standards Act in some sections, although, taking the Province as a whole, the system has continued to grow in favour, and many who were openly opposed to the pay-by-test system when it was introduced are now satisfied that paying for milk on the quality basis is the proper method.

Among the results following the administration of the Dairy Standards Act the following are reported by the instruction staff:—

Better care of the raw material.

Discontinuance of watering and skimming milk.

Keener interest in the testing of the individual cow with a view to weeding out those giving low testing milk.

A slight decrease in the amount of milk required to make a pound of cheese.

Butter Grading.

There are several advantages accruing from the butter grading service. It is a means by which the creameries are informed from day to day or week

to week as to the quality of the butter which they are producing. It enables the creamerymen to sell their butter on the quality basis and the merchants to purchase on a definite standard.

The records from the grading office enables our field instructors to concentrate on the creameries needing their assistance. This service is operated on a small net expenditure, and has been an important factor in improving the quality of Ontario butter in a number of creameries, although the average quality for the whole province has not shown improvement, largely as a result of the keen competition on the part of manufacturers to get volume of business. Many creameries sell their whole output in the local market for immediate consumption and can, therefore, handle cream of the lower grades to fairly good advantage. By close co-operation with the grading service, a few creameries have made marked progress in quality production during the past season, and their records, we are confident, will result in a number of the leading creameries purchasing cream on a quality basis during the coming season. Eighty-two out of 250 creameries in the Province took advantage of the grading service during 1923, eight more than in 1922; and 13,358 samples were graded, an increase of 1,772 packages over 1922.

The work of the men employed in checking-up tests of milk and cream in cream buying stations, creameries, condenseries, milk powder factories, and cheese factories in which a member of the regular instruction staff did not do the testing, has been a splendid educational feature, and is much appreciated by both producers and manufacturers. The testing done in the cream buying stations was not upon a satisfactory basis when this work was begun some four years ago, but through the activities of the provincial staff uniform up-to-date methods with suitable equipment has resulted.

The services as outlined above to the dairymen of the Province is free, except that a nominal charge of fifty cents per patron per season is made for the testing of milk in cheese factories. It would be well to consider the advisability of establishing standards for factories and creameries, both as to plant, equipment, and methods, if they are to take advantage of the service offered by the Department.

The Dairy Branch co-operated with the Dairymen's Association of Eastern Ontario in holding district dairy meetings at eighteen centres, at which representatives of the Department were in attendance to consider conditions and to give information and advice with a view to strengthening the position of the dairy industry. This branch provided a display of Ontario dairy products at the Canadian National Exhibition, and at the Western Fair in London. These exhibits drew attention to the importance of the industry and demonstrated the superiority of Ontario dairy products.

At the Dairy Show held under the auspices of the British Dairy Farmers' Association in London, England, in October last, Ontario secured first and third places in cheddar cheese, the competition being open to the overseas dominions. The prize winners were:—1st, W. C. Taylor, Fermoy cheese factory, Burridge; 3rd, J. Sprott, Eastern Dairy School, Kingston. Ontario also won high honours in both butter and cheese at the Glasgow show held a little later. Handsome medals were awarded to the winners at both shows.

FRUIT BRANCH.

Two orchards under the management of the Department at present are situated near Brantford and Woodstock. These orchards are being used for experimental rather than demonstration purposes, with tests of various fertilizers upon sand and clay soils. Methods adopted for pruning, cultivation and spraying are those found most successful in the majority of commercial orchards in the Province, viz: clean culture with cover crops, annual pruning for the removal of surplus wood growth, and three thorough sprayings with lime suphur with arsenate of lead added for the last two applications. When bad weather for scab follows the third spraying, a fourth spray has been applied with good results.

These orchards, containing over four hundred bearing trees, have now had three successive good crops. Unfortunately in 1922 hail completely destroyed the fruit for packing purposes in both orchards and the returns that year were very disappointing. In 1923, a full crop of fine fruit was harvested at both places, which was barrelled and boxed, shipped to the Government storage at Brighton and is now being marketed either for export or locally in Montreal and Toronto. The Brantford orchard produced 572 barrels and the Woodstock orchard, which is slightly larger, some 718 barrels, the varieties being principally Baldwin, Spy, and Greening.

Peach Shipments.

At the request of the peach growers of the Niagara district, two carloads of late peaches were exported to Great Britain in September. With the experience gained by previous shipments, it was thought possible to land our best variety, the Elberta, in London in good condition. As, however, the market there is prejudiced against the yellow-fleshed varieties in favour of the white flesh, the second car exported contained several hundred cases of the Belle of Georgia, a white fleshed peach with a fair reputation for quality.

The fruit was purchased outright from the growers, the Government assuming all risks, hand graded and packed at Grimsby where precooling facilities were available and shipped under refrigeration direct to London and Southampton. The fruit was wrapped and packed in the cases with wood wool and a fine grade of excelsior to prevent bruising. Three types of cases were used, a single layer suitcase box containing from fourteen to twenty-five fruits, a single layer case with compartments holding twenty-four fruits, and a double layer case holding forty-eight fruits. Apparently little difference in carrying value could be found, but the preference was for the first mentioned, as it was well known to the trade through the South African shipments.

The first car was sent by express to Montreal and transferred direct to the docks, while the second car went by freight without special supervision. The fruit from both cars received the same treatment at the docks, remaining in the sheds for about six hours, in both cases, before being transferred to the refrigerator chambers in the ship. Reports from the Dominion Government inspectors under the Cold Storage Branch were favourable as to the condition of the fruit both at Montreal and at point of arrival. However, from there on the reports as to quality were unfavourable, and while the fruit sold at fair prices, the comments of the trade as given herewith were quite adverse. Yellow-fleshed varieties, which now constitute possibly 99 per cent. of our orchards, are not wanted, and further experimental work must be carried on to determine where the loss of flavour occurs before any commercial shipments can be entirely successful.

ONTARIO GOVERNMENT PEACH SHIPMENTS TO ENGLAND, 1924.

FIRST CAR.

Contained 1,334 cases of peaches as follows:
Compartments—48's—200
Compartments—24's—444
Suit cases—16-25—690

EXPENDITURES.

Packages	$275 05
Wood wool—600 lbs., at $108.62 ton	32 68
Paper—105 lbs., at 9½ cents	9 97
Band iron	8 00
Peaches—561 baskets at 75 cents	420 75
Express, icing and switching charges Grimsby to Montreal	262 20
Ocean Freight—Montreal to London	334 66
Precooling Grimsby	49 47
Cost of packing (estimated)	58 00
	$1,450 78
Draft, Monro's Limited—£315-10-7 at $4.44	1,400 82

SECOND CAR.

Contained 1,723 cases peaches as follows:
Compartments—48's—424
Compartments—24's—300
Suit cases—14-23 —999

EXPENDITURES

Packages		$347 90
Wood wool—818 lbs., at $108.62 ton		44 43
Paper—145 lbs., at 9½ cents		13 78
Band iron		10 41
Peaches—648 baskets at 75 cents—$486.00 113 baskets at 65 cents— 73.45		559 45
Freight Grimsby to Montreal		148 53
Ocean Freight—Montreal to London		399 35
Precooling Grimsby		89 41
Precooling Montreal		6 30
Cost of packing (estimated)		76 00
		$1,695 56
Draft, Monro's Limited—£237-16-4 at $4.44	$1,055 83	
Cheque, Kent and Sussex farmers	547 15	
		1,602 98

Comments re Shipments of Peaches.

J. Forsyth Smith, Fruit Trade Commissioner in Great Britain:—

"The condition on arrival in the case of both consignments was quite satisfactory, the fruit with very few exceptions being sound and the general standard of condition being so uniform that it was impossible to distinguish between the various styles of pack.

"Although the peaches were sound in the main, they were dry and lacking flavour.

"A number of the principal retail buyers were interviewed and their views were generally adverse. They were unfavourably impressed with the flavour and quality, and maintained that the only demand in Great Britain was for a high-class white-fleshed dessert peach with which the present consignment could not compare.

"The net result of the trial shipment has been to confirm the views strongly expressed at meetings held at Grimsby and St. Catharines in 1922, that there is no prospect of developing a commercial demand in the United Kingdom for Ontario peaches."

A. E. Griffith, Congo Inspector, Cold Storage Division at London, England:—

1st Shipment—"The packing was very well done, each fruit being wrapped in paper and packed in wood wool. The condition of the fruit on arrival was generally good, having a nice high colour and standing up well. The white-fleshed varieties are more popular here than the yellow, but the whole consignment went off well.

2nd Shipment—"As to condition, salesmen tell me that these are not standing up well. I saw several trays showing waste, and there have been some returned by buyers after delivery on account of their being out of condition. The receivers do not seem greatly enamoured of this fruit—and I am afraid that generally they have not created a very favourable impression."

GEO. MONRO, LIMITED, Covent Garden Market:—

"It is fortunate that they arrived in London towards the close of the English peach season as, if they had come earlier, say, in August, they would have clashed with the bulk of the English peaches, as well as with the orchard fruits.

"The yellow flesh is not a dessert peach and they have not, in our opinion, sufficient quality for trade on this side. They are also very hard and we could not get the chefs to take them for Peche Melba.

"With regard to the white flesh, as you will see from the prices, these made more money, but even, in this case, they were difficult to push and we could not have obtained the prices we did if they had reached us earlier. They are too small and having been in cool storage they lost flavour and would not keep and deteriorate very quickly.

"The general condition of the fruit on arrival was fairly sound, but they developed a brown speck very rapidly. In other words, something similar to dry rot.

"With regard to packing, we have little fault to find with this for either the singles or doubles, but the 'divisions' packing is not considered as good as the others.

"In our opinion, the prices realized must be considered as very good indeed.

"In conclusion, we think we should say definitely that this business has no chance of being a commercial success and we do not recommend further shipments."

LESLIE BURROWS, Fruit Branch, Ottawa (writing from England):—

"Personally, I was much disappointed at the utter lack of quality in both the Elberta and Belles, but can give no satisfactory explanation for same. Possibly they were picked green, or if not, the period in storage, in car, and boat caused flavour to disappear. Many of the peaches are small, but on the whole both shipments arrived in excellent condition. The trade are very free in their description of these peaches as 'flannel' peaches, and from personal sampling in many places am forced to agree with them."

BRIGHTON COLD STORAGE PLANT.

The financial year of the cold storage commences on September 1st, and finishes on the 31st August. The storage season for 1922–23 opened on September 12th and continued until the 3rd June. Comparing the revenue for the past season with 1921–22 there is an additional return of $938.12. This increase is accounted for by the additional refrigeration of the storage basement, which the year previous was utilized as common storage. The revenue would have been increased in 1922–23 by $235.00 but this space was used for experimental lots of fruits and vegetables.

The following quantities of fruits and other commodities were handled through storage:—

8898 barrels apples.
2227 bushels apples and pears.
425 crates celery.
19 crates peppers.
16 box cheese.

It is interesting to note that the storage was patronized by forty growers and in every case the full amount of the storage account was collected. This is very gratifying and encouraging as it is an indication that the growers were satisfied with the cold storage in spite of the depressed nature of the apple market throughout the entire past season.

COLD STORAGE VERSUS COMMON STORAGE.—Comparing the cold storage with the common storage in the handling of apples during the past season, there was very little difference in the keeping qualities of the winter varieties up to the 15th March. This was due to the exceptional favourable conditions of outside freezing temperatures that were ideal for common storages. After the 15th March such varieties as Ben Davis and Gano commenced to discolour very badly in common storage, while in cold storage no effect was observed until the last week in May. The lots in cold storage of these two varieties that showed discoloration in May can be traced back to the delayed handling

methods to the cold rooms. The cold experience has been that apples on being exposed to the warm fall temperatures before being placed into refrigeration are subject to a sweating process whichw ill invariably cause a wastage or a shorter life of the fruit. There are a few varieties such as Phoenix, Stark, Greening, and Mann that are subject to apple scald. In this district special attention is required to aid in their keeping qualities. Last season there was a great variation in the length of time that these varieties could be held free from scald. This is not entirely credited to the fault of the cold storage, but to cultural conditions and slow handling to the cold rooms. Apples that were well matured, picked, packed, and handled to the cold storage the same day held up in perfect condition the longest. On the other hand, the same apples that were held at an even temperature as near as possible to 29 degrees Fahrenheit showed the least signs of scald at the same date. March 1st was the limit for keeping Phoenix while Stark and Mann were held in prime condition until the beginning of May. It is contemplated the coming season to experiment with these varieties by box packing and wrapping the apples in an oiled paper. Also an experiment with the barrelled fruit by lining the inside of the barrel with same type of paper.

Fall varieties such as Snow, McIntosh, and Blenheims kept in excellent condition until required for the Christmas market, while a number of barrels of the same varieties were held until March with equally as good success. Four barrels of Wealthy were held as an experiment until the 1st of May, and every apple looked as though they had been just picked off the tree. Two barrels of this variety were shipped north to Cochrane and arrived in good shape.

The Spy kept exceptionally well as late as May 10th. A number of Spies shipped in from the West which were subject to two handlings over the table and several freezings before entering the cold rooms should not have been admitted as they had lost their keeping qualities. The chemical change in fruit subject to such exposure had rendered the apples into a mealy, flavourless condition. Spies that were properly handled kept wonderfully well into May, with practically no shrinkage through soft fruit. Little shrinkage was experienced with one lot of forty-seven barrels Spy which packed out forty-six barrels graded fruit. Even this shrinkage could have been avoided if the fruit had been properly picked, packed, and stored the same day. In spite of the poor apple market conditions of the past season Spies continued to climb in price throughout the year which at the time of marketing the cold storage Spies in May brought the following prices:—

Spy, No. 1—	$10.00
2—	9.50
Dom. —	7.50
3—	7.00

Considering that Spies were fetching around $6.50 in the fall, and by storing at the 40 cent rate makes a total of $6.90, and with the spring price of $10, a margin of $3 approximately was realized on the investment. It is safe investment to cold store such varieties as Snow, Spy, McIntosh, Greening, and Stark and ship them out as the market demands. It is doubtful whether it pays to utilize cold storage for such varieties as Ben Davis and Gano when under ordinary storage conditions they keep in good shape until late winter. However, for spring shipment with the market prospects healthy to warrant the holding until a late date, or a grower or a body of growers who have a large quantity of winter varieties to dispose, then it might be good business to invest in cold storage. With the present high price of apple barrels (90 cents) it is doubtful

whether it is advisable to pack No. 3 grade, except with varieties like Snow, McIntosh, and Spy, but on an average year it is poor business to store this quality fruit owing to the high percentage of shrinkage.

A number of growers using common storage received 65 cents to $1.30 per barrel, gross returns, for Ben Davis and Gano, while the average price received for the same varieties out of cold storage was $2.30 net.

Better Handling.—The present rough system of handling apples by a number of growers must cease if our packs are to continue to compete on the open market. More care must be taken in the picking by instructing and watching over the pickers that the apples are not thrown around in the baskets and dumped into the barrels. Too much waste is experienced each season to the extent of 10–15 per cent. through careless pickers by stem punctures and bruises. Unnecessary rough dumping on the tables in the packing houses should be condemned and not tolerated, as fruit bruised at this handling renders the apples unsightly on being opened at the destination by the consumer.

The domestic market is demanding an original packed barrel of apples that have been carefully handled and uniformly put up. Central packing houses with a cold storage in close proximity is the one solution for the growers to follow to meet the demand of the original pack which the wholesale trade is offering 50 cents more per barrel. To utilize a central packing house the growers must be working together with the object of getting their fruit properly represented on the markets. Speculative buyers do not do this as shown by the varying packs and dishonesty displayed in grading in the past. Organized growers are in a position of packing their fruit to suit the wholesale trade and consumer with a fair remuneration. The growers should carefully pick, grade and pack under a uniform system and place into cold storage the same day or as soon as possible before the fruit has a chance to sweat. With the apples in the cold storage the growers can offer their produce under their own guaranteed brand to the highest bidder whether a dealer or the wholesale trade. This system is being tried out by the Northumberland Fruit Growers' Co-operative Association, Limited, this season in co-operation with the Fruit Branch, Ontario Department of Agriculture, the latter providing a Cutler grading machine for the Central Packing House which is alongside of the Government Cold Storage, Brighton. The grading machine when working to capacity will handle 350 barrels in ten hours which should take care of 1923 pack of the Association. Great interest is being taken by the growers and the wholesale trade of Toronto and Montreal in the experiment, which if successful will mean that there will be several packing houses started next year by co-operative organizations.

Celery.—Great success was obtained with 425 crates of celery that were held in cold storage the past season. Very little waste was experienced as only two crates went down with decay. The greatest quantity of this celery was marketed in January, while some 150 crates were held over until February and a few into March. In large quantities of several thousand crates, January to February 1st is a very practical period that celery can be held successfully without waste. Celery for cold storage should be bleached according to the time required to be held. That is, for short holding the stalks should be fairly well bleached, while to hold until January no bleaching is necessary as the celery will bleach in storage. It is very important that celery should be harvested with the roots on and packed in a three-quarter size crate (22 x 22 x 16 inches), and rushed to the cold storage as fast as it is packed. In the storage the crates should be stacked in tiers with 2 x 2 scantling between each tier and spaced

about 4 to 6 inches between the rows. This allows for ample air circulation. The cold rooms should be ventilated at four times a week, when the outside temperature is around 29 to 30 degrees Fahrenheit, by opening the doors. This is important owing to the green nature of the celery and the large quantities of CO_2 that accumulate in the rooms. At all times work the fans freely to maintain a constant change of air about the crates as it is very easy to get dead air pockets and moisture accumulation. A humidity of 78 to 80 per cent. should be held in the cold room along with the temperature of 31 degrees Fahrenheit. Sometimes it is necessary to dip the temperature down to 30 degrees in order to circulate the cold air through the centres when the outside tiers should be protected from the frost by strips of building paper.

Other Experiments.—Small experimental lots of melons, tomatoes and peppers were held in cold storage. However, at this date it is impossible to give any definite statement of the keeping qualities owing to the varying results. Further work will have to be conducted with these crops in order to derive accurate conclusions.

HORTICULTURAL EXPERIMENT STATION.

The activities of the Vineland Station are grouped under four headings for convenience, as follows: General, Plant Breeding, Experimental, and Extension.

General.—The eighty-five acres under lease is now pretty well planted out with seedling and experimental orchards. It is not anticipated that any further land will be required, as plant breeding material only occupies land for from three to ten or twelve years depending upon the kind of fruit. The land can then be used again for further plant breeding or other work.

Thirty-five acres of the above eighty-five remained to be underdrained and this work was proceeded with and completed in 1923.

Plant Breeding.

Strawberries.—In the 1922 report it was noted that results from the strawberry breeding work had been quite encouraging. A large number of plants have been distributed in the past few years, and some of the seedlings so distributed are doing well under conditions quite different from those obtaining at the Experimental Station. There is a steady demand for plants of these new varieties.

Raspberries.—Viking (Seedling No. 14038) continues to show great promise as a first-class commercial berry. Raspberry growers who have seen it fruiting are extremely anxious to secure a few plants, and to meet this demand an initial distribution will be made in the spring of 1924. The station plantation now consists of about four hundred plants. This plantation will be increased as rapidly as possible so that plants may be distributed in fair quantity to each grower. At present the demand exceeds the supply many times over.

Grapes.—Of some 21,000 grape hybrids which have been grown from seed between sixty and seventy have been selected as promising. These are being propagated in a limited way for further trial. No distribution will be made until the newly propagated vines have fruited.

Peaches.—The general results from the peach breeding work were noted in the 1922 report. General distribution will be made in the spring of 1924 of several of the more promising seedlings of the Elberta type (differing mainly

in season) which were propagated in 1922. A limited stock (about 300 trees) only is available and has been spoken for by the growers for some months past. Requests have been received for many times the stock available. Similarly the 1,700 trees budded in 1923, and which will not be available until the spring of 1925, have practically all been requested, though requests have been limited to fifty trees of any one variety. Orders are being received for trees to be budded to order in 1924. To date requests for 1,000 trees to be budded have been received. It should be noted that all of this stock is being propagated by an Ontario nursery, and that the cost of the stock (with the exception of small trial lots) is being borne by the fruit grower.

Apples.—In apples, thirty-three hundred seedling trees were set out in permanent fruiting rows in 1923. Several hundred were set out in previous years. None have fruited as yet.

Pears.—The breeding work with pears, looking towards blight resistance, is progressing very favourably. The oldest block of hybrids started fruiting in 1923, and while no careful examination was made of those trees which fruited, several were noted as bearing promising appearing fruit. A number of trees succumb to blight each year but this is to be expected. In those which finally survive it is hoped to find some combining blight resistance and commercially desirable fruit. The original crosses were made with that end in view, and parent varieties used accordingly.

Cherries.—In cherries the oldest block of seedlings fruited in fair quantity in 1923 for the first time. Several promising seedlings were noted, one in particular a very early solid fleshed white seedling of Windsor being considered of sufficient promise to warrant immediate propagation for further trial and distribution.

Vegetables.—The tomato breeding work is being continued and enlarged. A number of new crosses have been made, and still further crosses are planned in co-operation with the canning factories who have made definite request for aid in producing types of tomatoes particularly suited to their needs.

A similar request has been made with sweet corn and the work with corn has therefore been enlarged. The particular requirement in corn is for a good Bantam type of the right size and shape for canning on the cob. Canners Seeds, Limited, are supplying their best strains of both tomatoes and corn to provide a starting point in this work.

Breeding work is also being done with other outdoor vegetables, notably peppers, egg plant, cabbage, lettuce, rhubarb, asparagus, etc. In greenhouse vegetables the work with cucumbers and tomatoes is being carried on, but it is of course restricted by the amount of glass available. Limited distribution has been made of two or three best new tomato hybrids. The Hescrow cucumber was distributed first several years ago, and is considered to have only one fault, that of being somewhat light of colour. In other ways it is a distinct improvement over present day greenhouse varieties.

Experimental Work.

No new experimental projects were started in 1923. Of the projects under way, which deal with soil fertility, cultural methods (apples), pruning (peaches and apples), distance of planting (peaches), fruit thinning (peaches and plums), staking tomatoes, variety tests of various fruits and vegetables, etc., there is little new information to report. The more recently planted orchards have

made excellent growth. Many new varieties of fruits and vegetables listed by various nurseries and seedsmen have been added to the variety test plots. A considerable plantation of horseradish has been made, four varieties being included. In addition to the variety test, cultural experiments will be carried on.

Extension.

As a result of the earnest request of the fruit growers of the district that an Extension Service be provided from this station, Mr. J. A. Neilson, formerly lecturer in Pomology at the Ontario Agricultural College, was appointed for this purpose. Mr. Neilson took over his new duties in June and since that time has been continuously busy visiting growers, attending meetings and short courses, and answering correspondence on cultural subjects.

The accompanying table will serve to indicate in brief the amount and character of the Extension Service provided during the year 1923.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Meetings attended.....	47	15	10	4	3	1	0	4	0	0	1	3	84
Total attendance.....	105	383	382	54	64	20	0	360	0	0	150	77	2,595
Visits to and from growers.....	26	45	54	59	43	114	145	183	70	73	38	9	859
Corres. and Tel.....	67	111	108	157	207	111	92	61	56	43	82	52	1,147
Total.....	1198	539	544	270	314	245	237	604	126	116	270	138	4,601

Compared with 1922 a considerably increased amount of work is shown especially in the time consuming visits to and from growers. In 1922 the total number of meetings attended and addressed was fifty-five, with a total attendance of 1,619; the visits to and from growers, 638; and the correspondence and telephone calls on cultural subjects, 784, for a total of personal services of 3,041. The 1923 record as noted in the above table is considerably higher.

In addition to the above, Mr. Neilson lectured on horticulture at the three months' short courses at Caledon (attendance, thirty-eight), Ancaster (eighty); Exeter (forty); Fergus (thirty-five). From ten to twelve lectures were given at each place.

Five leaflets were sent out during the year follows:—

No. 19—Fertilizers for fruit crops.
" 20—Recommended varieties of fruits.
" 21—Asparagus, varieties and culture.
" 22—Thin your peaches.
" 23—Collar rot or crown rot.

With these leaflets there were also included circulars prepared by W. A. Ross of the Dominion Entomological Branch, on the control of various fruit insects. The number of leaflets sent out in 1923 was reduced over 1922 owing to lack of funds.

PROVINCIAL ENTOMOLOGIST.

In addition to his work at the Ontario Agricultural College as Professor of Economic Entomology and the work on the European Corn Borer, the following duties were performed under the Fruit Branch:—

1. The administration of the Fruit Pest Act.
2. Spray experiments.
3. Investigation of the Striped Cucumber Beetle.
4. Addresses at fruit meetings in winter and orchard meetings in summer.
5. Responding to requests by individual growers for personal inspection of special pests.
6. Preparation of a new spray calendar.

Fruit Pest Act Administration.—(*a*) Under this Act all nurseries were were inspected as usual for San José scale and all infested trees destroyed. It is a pleasure to be able to report that our nurseries continue to be gratifyingly clean, very few infested trees having been found in any nursery.

(*b*) The fumigation of nursery stock has been conducted by our inspectors as usual with nothing new to report.

(*c*) The orchard inspection work for scale, balck knot, yellows and little peach was carried on as usual. San José scale is increasing again throughout the parts of the Province where it will thrive and is requiring additional attention. Little peach and yellows are being kept under good control, there having been no increase the last eight years or more and only a few infested trees here and there being found each year by the inspectors in their rounds.

Spray Experiments.—(*a*) A large series of experiments on spraying were conducted on a ten acre orchard of Snow and McIntosh apples near Simcoe in Norfolk County. The work attracted the attention of many growers. The results have been compiled and an account of them forwarded to each of the agricultural representatives and also to the agricultural press.

(*b*) Spray experiments on the control of rot of sweet cherries were carried out, the main object being to test whether it was practical and safe to spray cherries in full bloom with a fungicide with the object of preventing rot at this stage in a wet season. The results showed that this could be done. In addition to this our former experiments in controlling rot throughout the cherry season were repeated and proved entirely satisfactory.

(*c*) The spray experiments on grapes in the Niagara District begun two years ago were continued. These were in conjunction with Professor Howitt of the Botany Department, Ontario Agricultural College. Weather conditions this year, however, were not favourable for the development of diseases, hence no conclusions can be drawn as to the merits of the sprays.

Striped Cucumber Beetle: The investigation of the Striped Cucumber Beetle was continued again this year. Further data of value on its habits and life history were obtained, but owing to the scarcity of the beetles it was impossible to carry out satisfactory control tests.

In addition, many addresses have been delivered and general educational work performed.

PROVINCIAL APIARIST.

Due to the fact that there was $14,000 ($9,000 Provincial, $5,000 Federal) available for apiary inspection in the Province this year, it was found possible to do much more work than has been done in the past. In some counties where

little work had been done previously, inspectors scouted over the country to ascertain whether American foul-brood was prevalent, and if so, how widely scattered.

Seventy inspectors worked for varying periods during the summer.

American foul-brood was found in many apiaries in the Counties of York, Grey, Lincoln, Ontario, Peel, Haldimand, Lambton, Oxford, and Simcoe. In all these counties, much of the disease was either destroyed or treated, and in all cases second visits were made to ascertain the fact that treatment had been given.

Brant, Bruce, Dufferin, Durham, Elgin, Halton, Huron, and Middlesex Counties showed less American foul-brood than previously, although there is considerable work yet to be done in these counties.

In the Counties of Carleton, Prescott, Peterboro, Northumberland, Lanark, Frontenac, Kent, and Essex, American foul-brood occurs only in isolated centres, and it is planned to try and eradicate the disease in these centres during the season of 1924.

With the two chemical treatments now available for combs infected with American foul-brood germs or spores, it is felt that the inspection work should be much more effective in the future than has been the case in the past.

During the past season some experimental work was completed with sodium hypochlorite, and as far as we could see at the end of the season, no American foul-brood appeared in the combs which had been treated. The treatment is not recommended for combs having the scales of American foul-brood or dead larvae present from the disease, but only for super combs from infected colonies.

The alcohol-formalin treatment for brood combs, showing the scales of American foul-brood opens a way for a much more thorough clean-up of diseased apiaries, and it is hoped that the Department will be able to do some experimental work as well as clean-up work, during 1924, with this method of treatment.

If we can carry out this treatment, I would suggest that beekeepers pay the Department the actual cost of materials and time used in carrying out the treatment, as it would mean a very considerable saving to the beekeeper.

During the season the following results were obtained:

No. Colonies Examined	A.F.B.	E.F.B.	No. Colonies Treated	No. Colonies Destroyed
35,962	4919	825	2,954	1,214

In a number of cases, apiaries were cleaned up where records show that the disease had been prevalent for years. Many old combs, which had been stacked or stored, and which showed disease, were also destroyed. These are not counted in number of colonies destroyed.

If it is possible to have three or four years vigorous apiary inspections, it will be possible to so control American foul-brood that it will lose its destructive power in the Province.

Generally the beekeepers were helpful to the inspectors during their visits.

So far as can be seen, European foul-brood has lost its severe character, and where it occurs, it usually does so in a much milder form than it did a few years ago. A few bad cases are still reported, but generally the disease is quite mild. There is no doubt this is due to the Italianizing, and to better beekeeping methods practised.

The Beekeepers' Association has had a very busy and useful year, in spite of a slight decrease in membership, which now stands at 1,186. As a result of work initiated following the last annual meeting, a co-operative marketing organization has been launched and appears to be starting out on a sound business basis. In the meantime, however, the Association has handled supplies co-operatively. Last year over 800,000 containers were sold to members as compared with 600,000 the year previous. It is expected that this work will now be taken over by the company. Queens to the number of 2,394 have been purchased during the year.

AGRICULTURAL REPRESENTATIVE BRANCH.

The work of the Agricultural Representative still continues to be an important factor in the agricultural development of the community. Reports would indicate that the services of these men were never in such great demand to assist in all phases of rural organization and community betterment. Their offices are more or less clearing houses for agricultural information. Telephone calls, personal visits and general correspondence are increasing from year to year.

A few changes occur each year in the service. Resignations were received from the Agricultural Representatives in the counties of Lincoln, Dundas, Fort William and Port Arthur; the former two leaving the service to engage in Co-operative Marketing, and the latter two men to go into farming on their own account.

Rural School Fairs.

Rural School Fairs were conducted throughout the Province during 1923 with little or no change in the method of organization followed in former years, except in certain individual cases where improvements were made in the method of financing the prize list and in paying the prize money to the winning pupils. There were 510 School Fairs conducted during 1923, embracing 4,249 schools. The total number of entries at all School Fairs amounted to 239,852, with an average of 481 at each fair.

The cold, backward spring season interfered very materially with the distribution of school fair supplies. In counties where eggs were distributed to the schools early in April, the percentage of chickens hatched was comparatively low in the majority of cases. On the other hand, where eggs were distributed after the middle of April, the pupils on the whole secured a fairly high percentage of chickens. The small hatch of chickens from eggs distributed early in April was probably due to eggs becoming chilled during delivery, the inability of children receiving eggs to secure a sitting hen so early in the season, and the forced confinement of the hens at the breeding stations because of the unfavourable weather.

The unfavourable weather conditions early in the spring and the more or less prolonged period of drought during the growing season in some parts of the Province did not materially affect the grain, roots, vegetables and flowers grown by the children for school fair purposes. In fact, the best quality of vegetables is usually obtained from comparatively late planting, as the rapid short season growth tends to produce better quality and eliminates, to a large extent, the danger of producing rough and coarse, oversized specimens. With flowers, also, the later planting assures the children of an abundance of bloom from which to select at the time of the school fair. In the past many early planted flowers have come on so early in the summer that the bloom was practically all over before the date of the school fairs.

The educational value of school fairs is shown by the steady improvement in the quality and uniformity of the children's exhibits in all classes; and, in 1923, the uniform excellence and quality of exhibits in all departments was above that of any previous year. By studying the type and quality of winning exhibits and from the instructive talks given by the school fair judges, the school children receive a valuable training which is reflected in the quality of exhibits in succeeding years.

The following quantities of seeds and eggs were distributed by the Ontario Department of Agriculture for school fair purposes during 1923:—

Potatoes	1,194 bags
Oats, barley and wheat	344¼ bushels
Corn (Sweet and Field)	23,100 packages
Beets, carrots, onions, parsnips, pumpkins	60,300 "
Mangels and turnips	17,450 "
Flowers	75,300 "
Eggs (Bred-to-Lay Plymouth Barred Rocks)	12,408½ dozen
Day Old Chicks (Bred-to-lay Barred Plymouth Rocks)	1,772

1923 SCHOOL FAIR STATISTICS, BY COUNTIES.

County	No. of Fairs	No. of School schools	No. of Pupils	No. of Plots	No. Doz. Eggs Distributed	No. Baby Chicks	No. of Entries	Attendance	
								Children	Adults
Algoma	10	52	1,798	3,554	382	.....	4,238	2,028	2,075
Brant	8	58	2,148	1,614	127	.....	3,786	1,925	1,300
Bruce	16	148	5,019	5,660	440	.....	7,080	7,225	7,215
Carleton	9	88	2,205	2,954	262	.....	5,583	2,550	4,575
Dufferin	6	67	1,429	1,720	87	.....	2,162	1,475	1,075
Dundas	6	101	2,355	2,625	182	.....	3,575	2,750	2,050
Durham	12	91	2,196	2,510	191	.....	3,886	3,100	4,725
Elgin	14	127	3,606	3,466	717	.....	5,958	3,606	6,825
*Essex	12	91	3,116	3,643	227	292	5,842	3,725	4,000
*Frontenac	11	99	2,570	3,428	198	.....	4,101	3,765	3,050
Glengarry	9	115	2,972	5,279	96	.....	4,389	2,975	3,550
Grenville	6	79	1,888	1,384	111	.....	2,813	2,625	2,750
Grey	19	174	4,598	5,249	372	.....	8,043	7,050	7,175
Haldimand	6	71	1,912	1,503	187	.....	2,971	2,100	4,700
*Halton	8	54	3,560	4,834	91	1,480	5,750	7,075	8,600
Hastings	8	103	2,995	2,355	166	.....	2,710	2,950	4,350
*Huron	19	180	4,200	4,725	415	.....	9,542	4,200	14,700
*Kenora	11	20	566	1,638	103	.....	1,439	591	605
Kent	12	139	4,284	5,641	603	.....	6,096	3,950	4,800
Lambton	12	138	3,411	6,449	390	.....	8,328	3,900	9,850
Lanark	9	74	1,500	2,583	182	.....	3,388	5,325	4,450
Leeds	10	117	1,882	2,970	165	.....	5,282	3,485	7,250
Lennox and Addington	10	98	2,037	2,724	120	.....	4,390	2,025	2,600
Lincoln	8	50	2,317	2,625	252½	.....	5,411	3,350	1,900
*Manitoulin	10	51	1,308	2,028	226	.....	2,575	1,350	1,725
Middlesex	10	97	3,213	3,101	220	.....	8,601	5,900	8,615
Muskoka	14	48	1,740	1,475	245	.....	2,685	2,340	3,575
*Norfolk	9	101	2,665	2,805	394	.....	4,435	3,200	7,300
Northumberland	9	94	2,326	2,984	307	.....	6,600	2,700	2,800
Ontario	17	127	3,847	6,956	383	.....	16,035	5,000	9,235
*Oxford	11	105	4,744	4,408	336	.....	7,196	3,950	4,300
Peel	6	72	2,356	1,979	255	.....	3,840	2,750	2,300
Perth	11	60	1,843	1,888	175½	.....	14,100	4,245	7,400
Peterboro	8	55	1,435	1,674	127	.....	2,026	2,000	2,700
Prescott and Russell	11	74	1,994	2,753	100	.....	3,135	3,200	8,700
Prince Edward	8	74	1,828	3,949	154	.....	2,187	1,875	2,025
*Rainy River	14	55	2,247	3,285	335	.....	3,450	3,085	2,290
Renfrew	8	53	1,694	1,989	132	.....	2,968	3,060	3,650
Simcoe, North	8	105	3,283	3,422	214	.....	3,157	2,925	4,475
Simcoe, South	8	95	3,093	3,956	352	.....	3,996	2,925	3,450
Sudbury	8	63	1,595	1,595	340	.....	3,183	2,425	870
Fort William	9	21	552	1,105	60	.....	1,093	720	1,660
Port Arthur	8	26	697	1,307	114	.....	1,210	605	440
Timiskaming	10	24	583	776	90	.....	1,319	392	293
Victoria	14	92	2,436	2,941	221	.....	5,052	3,875	4,150
Waterloo	7	67	2,861	1,176	219	.....	4,123	3,600	3,200
*Welland	9	72	2,200	2,550	452	.....	3,693	4,400	3,650
Wellington	10	91	2,174	2,357	155	.....	4,235	3,040	5,710
*Wentworth	11	71	3,241	3,010	230	.....	5,330	4,200	3,630
York	11	122	5,467	5,478	366	.....	6,865	5,250	6,600
Total	510	4,249	125,986	152,080	12,269	1,772	239,852	162,762	218,913

*Includes Championship Fair; Entries and attendance includes Rural School Fairs only.

New Features in School Fair Work.

The prize list classification for school fairs throughout the Province is more or less standardized in so far as the classes for live stock, poultry, grain, roots, vegetables, flowers, nature study, craftsmanship, and Domestic Science are concerned. In addition to the standard classes, the Agricultural Representatives receive funds for special classes, competitions, and demonstrations which add considerably to the interest and value of school fair work. These special features include demonstrations in canning, poultry culling, hog grading, competitions in live stock judging, vegetable judging, fruit judging, public speaking, poultry plucking, darning, mending, sewing on buttons, first aid, splicing rope, riding, driving, live stock naming, weed and weed seed naming, singing, school parades, and Strathcona drills. A programme of sports is also conducted for the amusement of the school children and the entertainment of spectators while the judging of exhibits is in progress.

Subjects of timely interest and economic importance have been brought to the attention of the public at a number of school fairs. In Algoma, for example, the Public Health Nurse conducted a Child Welfare and Health Clinic at each of the fairs. The medical doctor who assisted the Public Health Nurse, states, "I estimate that at the nine school fairs, representing forty-five schools, we were able to meet some twelve hundred children or probably more than that number in the southern section of the Algoma district."

In Dundas county a demonstration was conducted with a select bacon hog.

The Agricultural Representative comments on this feature as follows:

"Perhaps the most interesting new feature this year was the presence of a select bacon hog In co-operation with the Live Stock Branch we arranged with Mr. Chipman, chief grader, Montreal Yards, to send up a select bacon hog and also a demonstrator in charge of this hog. This hog was on exhibit at all the fairs and occasioned a great deal of discussion with the farmers and grown-ups who were at the fair. The select bacon type is new to many of our farmers, and a great deal of surprise was expressed when a hog of this type was finished and would weigh as heavily as this one did."

The Agricultural Representative in Huron county made arrangements with the Sheep Promoter of the Dominion Department of Agriculture for Western Ontario for a sheep exhibit at each of his school fairs. This exhibit was arranged on a truck and consisted of a number of good type, well bred, ram lambs which were offered for sale; a display of the various grades of wool and an exhibit of finished and unfinished market lambs. This exhibit attracted a great deal of attention and favourable comment.

Championship School Fairs.

Championship School Fairs were held in the following counties: Essex, Halton, Huron, Kenora, Frontenac, Manitoulin, Norfolk, Oxford, Rainy River, Welland, and Wentworth. The first, second, and third prize winners at each local school fair were allowed to compete at the Championship Fair which was held in conjunction with the main or most central Agricultural Society in the respective counties. In addition to the above Championship School Fairs, a number of Agricultural Representatives conduct championship events in connection with special features of the school fair work such as Championship School Fair Live Stock Judging Competitions, Parades, and Public Speaking contests.

Joint Agricultural Society and School Fairs.

Rural School Fairs and Agricultural Society Fall Fairs were held jointly during 1923 at the following places:

County	Name of School Fair	Name of Agricultural Society Fair
Bruce	Bruce and Kincardine	Tiverton Agricultural Society
Carleton	Osgoode	Metcalf Agricultural Society
Essex	Championship School Fair	Essex Fall Fair
Elgin	South Dunwich	West Elgin Agricultural Society
Frontenac	Championship School Fair	Kingston Industrial Exhibition
Grey	Durham	South Grey Agricultural Society
"	Markdale	Markdale Agricultural Society
Haldimand	Jarvis	Walpole Agricultural Society
Halton	Burlington	Burlington Agricultural Society
"	Championship School Fair	Milton Agricultural Society
Huron	Wingham (Championship School Fair)	Wingham Agricultural Society
"	Blyth	Blyth Fall Fair
Kent	Blenheim	Blenheim Agricultural Society
Kenora	Dryden (Championship School Fair)	Dryden Agricultural Society
Lambton	Brooke	Brook and Alvinston Agricultural Society
Manitoulin	Manitoulin District	Gore Bay Agricultural Society
Muskoka	Powassan	Powassan Agricultural Society
"	Huntsville	North Muskoka Agricultural Society
"	Loring	Loring Agricultural Society
"	Port Carling	Medora and Wood Agricultural Society
"	Magnetewan	Magnetewan Agricultural Society
Norfolk	Townsend	Townsend Agricultural Society
"	Middleton	Courtland Agricultural Society
"	North Walsingham	North Walsingham Agricultural Society
"	Championship School Fair	Norfolk Agricultural Society
Ontario	Sunderland	Brock Agricultural Society
Oxford	Woodstock Championship Fair	Woodstock Agricultural Society
Rainy River	Rainy River Championship Fair	Atwood Agricultural Society
"	Emo Championship Fair	Rainy River Valley Agricultural Society
Renfrew	Cobden	Cobden Agricultural Society
"	Beachburg	North Renfrew Agricultural Society
Thunder Bay:		
Port Arthur	Kaministiquia	Ware Township Agricultural Society
Fort William	Hynmers	Hynmers Fall Fair
Welland	Championship School Fair	Welland County Agricultural Society
Wentworth	Championship School Fair	Ancaster Agricultural Society

Where joint fairs are held the Agricultural Society agrees to pay the prize money, provide hall or tent space for exhibits, and police protection during the period of the fair. Joint fairs have proven to be fairly successful in a number of cases but generally speaking, school fairs are more successful when held separately so that the various features are not interfered with by the many-sided attractions which prevail at an Agricultural Society Fair.

Home Garden Contests.

Home Garden Competitions were conducted throughout the province in 1923 as follows:

County	Number of Contests	Number of Contestants	
		Boys	Girls
Algoma	1	9	9
Brant	2	26	13
Bruce	2	25	13
Dufferin	2	28	19
Dundas	2	17	18
Elgin	1	25	..
Essex	3	43	32
Frontenac	2	25	25
Glengarry	1	9	9
Grenville	3	48	34
Grey	4	59	41
Haldimand	2	32	23
Halton	1	10	11
Hastings	2	30	20
Huron	2	23	24
Kenora	1	9	16
Kent	1	15	8
Lanark	1	5	..
Leeds	2	29	24
Lennox and Addington	1	16	8
Lincoln	2	17	20
Manitoulin	1	9	10
Middlesex	1	5	4
Muskoka	1	8	7
Norfolk	2	38	28
Peel	1	13	10
Perth	1	8	8
Peterborough	2	25	25
Prescott and Russell	2	26	23
Prince Edward	1	18	7
Rainy River	3	45	36
Renfrew	1	6	5
Simcoe, North	1	11	14
Simcoe, South	1	15	9
Timiskaming	1	5	3
Waterloo	5	39	32
Welland	2	20	13
Wentworth	2	29	21
York	1	9	6

Each contestant was supplied, at the nominal charge of fifty cents, with sufficient garden vegetable seeds to plant a garden 30 x 40 feet, for hand cultivation, or ten rows 75 feet long for horse cultivation. A pamphlet of instructions on cultural methods was also supplied to each contestant. During the months of July and August the Agricultural Representatives inspected the gardens and awarded prizes on the basis of the plan of the garden, cultivation, and quantity and quality of vegetables produced. Prizes are also offered at a number of school and fall fairs for products from these gardens including canned vegetables, and some very creditable displays were made. In addition to supplying the household with fresh vegetables a number of contestants were able to sell considerable quantities to neighbours.

POULTRY BREEDING STATIONS

Table of Poultry Breeding Station statistics for 1923.

County	No. of P.B. Stations	No. of Hens and Pullets	No. of Cockerels	No. Doz. Eggs for School Fairs	No. Doz. Eggs Sold to Farmers
Algoma	4	236	12	90	58
Brant	4	412	18	127	....
Bruce	6	738	29	444	200
Carleton	5	390	19	230	27
Dufferin	4	330	18	96½	157
Dundas	5	524	11	233½	115
Durham	6	425	24	191	....
Elgin	8	768	38	717	176
Essex	5	358	17	227 (292 baby chicks)	....
Frontenac	4	522	22	199	102
Glengarry	2	102	5	107	44
Grenville	2	281	13	111	60
Grey	6	380	16	....	....
Haldimand	1	140	7	187	50
Halton	4	1,200	27	.. (1,480 baby chicks)	125
Hastings	3	435	9	166	60
Huron	2	800	22	412	550
Kenora	3	152	10	104	....
Kent	7	900	47	601	308
Lambton	4	283	20	265	246
Lanark	3	180	9	....	....
Leeds	8	591	25	184	112
Lennox and Addington	1	120	7	120	236
Lincoln	3	295	13	252½	29
Manitoulin	7	710	17	226	....
Middlesex	4	403	21	220	300
Muskoka and Parry Sound	3	195	12	251½	....
Norfolk	4	440	14	242	140
Northumberland	6	295	16	307	....
Ontario	5	546	27	391	304 (576 baby chicks)
Oxford	3	462	23	311	287
Peel	3	365	18	281	483
Perth	1	175	8	175½	....
Peterboro	2	175	11	127	70
Prescott and Russell	4	501	17	100	....
Prince Edward	3	135	12	154	....
Rainy River	11	440	22	335	....
Renfrew	4	218	13	121	34
North Simcoe	4	290	12	....	....
South Simcoe	1	254	10	352	250
Sudbury	4	200	13	83	30
Thunder Bay—					
Fort William	1	100	6	31	....
Port Arthur	5	265	13	115	289 (1,285 baby chicks)
Timiskaming	2	260	8	96	...
Victoria	5	367	20	219½	102
Waterloo	4	335	19	219	....
Welland	5	504	20	452	140
Wellington	4	635	35	43	55
Wentworth	4	251	16	278	110
York	6	275	13	232	25
Total	206	19,358	854	10,427 (1,772 chicks)	5,274 (1,861 chicks)

The extension workers from the Poultry Department of the Ontario Agricultural College visited all the poultry breeding stations, inspected the poultry plant and equipment of the operators and rigidly culled their flocks, eliminating all birds which did not show evidence of high production. Selected cockerels from a high producing bred-to-lay strain of Barred Plymouth Rocks are supplied by the Ontario Agricultural College each year to head these breeding station flocks. The breeding station flocks have by the culling and continuous use of superior male birds been brought up to a very high standard, and a wonderful improvement is being made in the farm poultry flocks throughout the Province by the distribution of breeding station eggs for hatching purposes to boys and girls in school fair work. Last year the breeding stations supplied for school fair purposes 10,427 dozen eggs, and sold directly to farmers for hatching 5,274 dozen eggs.

In two or three counties baby chicks were distributed instead of eggs for school fair purposes. This practice was only partly successful as it was found that in the majority of cases the children were not able to take over and care for the day-old chicks. Therefore, to avoid too great a loss the Agricultural Representative in Halton county found it necessary to keep the chicks at the breeding stations in brooders for four or five days, and then put them outside in sheltered places with hens for a few days to become hardened before distributing to the children.

Short courses in Practical Agriculture were conducted throughout the Province during January and February, 1923, as listed below:

County	Where Held	No. on Roll	Average Attendance
Brant	St. George	18	15
Bruce	Walkerton	29	24
"	Arkwright	31	18
Carleton	Pierce's Corners	22	12
Dufferin	Laurel	22	15
Dundas	Finch	24	11
Durham	Blackstock	39	25
Elgin	Corinth	16	12
Essex	St. Joachim	55	60
Frontenac	Parham	35	20
Grenville	Spencerville	12	7
Grey	Clarksburg	27	18
"	Holstein	28	25
Kent	Merlin	62	35
Lambton	Wanstead	27	19
Lennox and Addington	Napanee	6	4
Lincoln	St. Catharines	12	10
Manitoulin	Gordon	20	14
Norfolk	Windham Centre	20	15
Northumberland	Grafton	10	6
Ontario	Greenbank	22	19
Oxford	Mount Elgin	38	30
Perth	Stratford	47	37
Prescott and Russell	Alfred	44	79
Renfrew	Westmeath	10	8
South Simcoe	Thornton	39	31
Sudbury	Verner	28	22
Victoria	Cambray	25	17
Waterloo	Galt	10	9
"	Waterloo	10	12
Welland	Stevensville	18	14
Wellington	Rockwood	105	56
York	Agincourt	26	18
Total		937	717
Average		28	22

Courses were started in counties of Glengarry, Haldimand, Halton, Hastings, and Lanark, but owing to slim attendance due to illness and other causes were cancelled.

The thirty-three short courses were attended regularly by twenty-eight young men. Since 1912, three hundred and eighty-four short courses in Agriculture have been held, attended by 9,464 young farmers.

Assistants were provided for the period of the short courses on the basis of one man between two counties and their time divided equally between the two counties to which they had been assigned. The Agricultural Representatives and the assistants took charge of all the lecture and demonstration work, except for special subjects such as Veterinary Science, Fruit and Vegetable Growing, Poultry, Bees, Markets and Co-operation, Farm Bookkeeping, Farm Management, and Plant Diseases, where special lecturers were supplied when requested.

Three Months' Courses in Agriculture and Domestic Science.

Three months' courses in Agriculture and Home Economics were conducted in eight counties during the winter of 1923 as follows:

County	Where Held	Attendance			
		Agriculture		Domestic Science	
		No. on Roll	Average Attendance	No. on Roll	Average Attendance
Huron	Clinton	32	22	34	21
Leeds	Mallorytown	65	24	40	16
Middlesex	Parkhill	22	10	44	24
Peel	Streetsville	18	13	45	22
Peterboro	Norwood	34	20	25	16
Prince Edward	Wellington	36	20	38	25
North Simcoe	Orillia	23	14	33	25
Wentworth	Binbrook	65	38	48	35
Total		295	161	307	184
Average		37	20	38	23

The staff of lecturers for the three months' courses were supplied by the Department of Agriculture while the local communities, where the courses were held, assisted by township and county councils, furnished halls, heat, light, and general equipment free of charge.

These courses proved very popular and seemed to fill a need. Lectures were given at each course in English and mathematics, and some students stated that they appreciated these lectures as much, if not more, than any of the so-called practical subjects outlined in the calendar. Lectures were supplemented by practical demonstrations—visits were made to stock farms for instruction and practice in judging live stock. Orchards and gardens were visited for demonstrations in pruning. Creameries were visited where students actually tested milk and cream and where they had demonstrated to them the process in the manufacture of butter. Literary societies were organized and students had practice in debating, public speaking, and in conducting meetings.

Sheep and Swine Marketing Courses.

The Sheep and Swine Division of the Dominion Department of Agriculture assisted by the Agricultural Representatives conducted during the past year a series of sheep and swine marketing courses similar to those held during the past two years. In view of the hog grading regulations and the demand for improvement in market lambs, these courses have been well attended and greatly appreciated by the farmers throughout the Province.

SPECIAL SHEEP MARKETING COURSES

Date	Place	County
Western Ontario—		
*Jan. 4, 5	Orillia	North Simcoe
*Jan. 9 10	Thornton	South Simcoe
*Jan. 11, 12	Georgetown	Halton
*Jan. 16, 17	Rockwood	Wellington
*Jan. 18, 19	Stratford	Perth
Jan. 23, 24	Alvinston	Lambton
*Jan. 25, 26	Parkhill	Middlesex
*Jan. 30-31	Clinton	Huron
*Feb. 1, 2	Walkerton	Bruce
*Feb. 6, 7	Holstein	Grey
Feb. 15, 16	Shelbourne	Dufferin
Feb. 20, 21	Caledon	Peel
*Feb. 22, 23	Schomberg	York and South Simcoe
Feb. 27, 28	Caledonia	Haldimand
Mar. 1, 2	Simcoe	Norfolk
Eastern Ontario—		
*Jan. 25, 26	Blackstock	Durham
*Feb. 1, 2	Madoc	Hastings
*Feb. 5, 6	Perth	Lanark
*Feb. 15, 16	Westmeath	Renfrew
*Feb. 22, 23	Parham	Frontenac

*Course conducted during period covered by the Special Month's or Three Months' Course in Agriculture.

SPECIAL SWINE MARKETING COURSES

Date	Place	County
Western Ontario—		
*Jan. 3, 4, 5	Clarksburg	Grey
*Jan. 8, 9, 10	Georgetown	Halton
*Jan. 10, 11, 12	Streetsville	Peel
*Jan. 15, 16, 17	Wanstead	Lambton
Jan. 17, 18, 19	Mount Brydges	Middlesex
*Jan. 22, 23, 24	Clinton	Huron
*Jan. 24, 25, 26	Walkerton	Bruce
*Jan. 29, 30, 31	St. Joachim	Essex
*Jan. 31-Feb. 1, 2	Merlin	Kent
Feb. 5, 6, 7	Dutton	Elgin
Feb. 7, 8, 9	Mount Elgin	Oxford
Feb. 12, 13, 14	Dunnville	Haldimand
Feb. 14, 15, 16	Smithville	Lincoln
Feb. 19, 20, 21	St. George	Brant
*Feb. 21, 22, 23	Binbrook	Wentworth
*Feb. 26, 27, 28	Galt	Waterloo
Feb. 28-Mar. 1, 2	Mitchell	Perth
Mar. 5, 6, 7	Mount Forest	Wellington
Mar. 7, 8, 9	Orangeville	Dufferin.

SPECIAL SWINE MARKETING COURSES—*Continued*

Date	Place	County
Eastern Ontario—		
*Jan. 15, 16, 17	Oakwood	Victoria
*Jan. 17, 18, 19	Norwood	Peterboro
Jan. 22, 23, 24	Stirling	Hastings
Jan. 24, 25, 26	Harrowsmith	Frontenac
*Jan. 29, 30, 31	Odessa	Lennox and Addington
*Jan. 31-Feb. 1, 2	Mallorytown	Leeds
*Feb. 5, 6, 7	Spencerville	Grenville
*Feb. 7, 8, 9	Finch	Dundas
Feb. 12, 13, 14	Martintown	Glengarry
Feb. 14, 15, 16	Alfred	Russell and Prescott
*Feb. 19, 20, 21	Schomberg	York and South Simcoe
Feb. 21, 22, 23	Beaverton	Ontario

*Course conducted during period covered by the Special Month's or Three Months' Course in Agriculture.

The Agricultural Representative Branch again co-operated with the Canadian Swine Breeders' Association, the Federal and Provincial Live Stock Branches, and the Industrial and Development Council of Canadian Meat Packers in conducting a series of Swine Marketing anf Grading Courses throughout the Province. The courses conducted in December, 1922, were held at the Meat Packing Plant in Hull, Que.; Peterborough, Toronto (East), Toronto (West), Brantford, and Ingersoll.

Place	Date	Counties Included	Attendance
Hull, Canadian Packing Company's Plant	Dec. 14, 15, 16	Renfrew, Carleton, Lanark, Leeds, Grenville, Glengarry, Dundas, Prescott and Russell	39
Toronto (East), The Packing Plants	Dec. 14, 15, 16	Peel, Halton, Simcoe South, Ontario, York, Durham, Simcoe North	58
Peterborough, Canadian Packing Company's Plant	Dec. 14, 15, 16	Frontenac, Lennox and Addington, Hastings, Prince Edward, Northumberland, Peterborough, Victoria	30
Toronto, (West), The Packing Plants	Dec. 18, 19, 20	Wellington, Bruce, Grey, Waterloo, Perth, Huron, Dufferin	42
Ingersoll, Ingersoll Packing Company's Plant	Dec. 18, 19, 20	Essex, Kent, Elgin, Lambton, Middlesex, Oxford	19
Brantford, Canadian Packing Company's Plant	Dec. 18, 19, 20	Haldimand, Welland, Lincoln, Wentworth, Brant, Norfolk	33

Competition was open to teams of five junior farmers from the counties above named.

Other Special Courses.

Special courses in Live Stock and Seed Judging of one or two days' duration were conducted by the Agricultural Representatives in a number of counties. The objects of these courses were to stimulate a greater interest in good live stock and good seed, and to give farmers a good practical training in judging

both. Special lecturers supplied by the Institutes Branch of the Ontario Department of Agriculture took charge of the live stock judging work, and other lecturers were secured for the seed work as required; the Seed Branch of the Dominion Department of Agriculture lending some assistance in this connection. Other special courses were conducted dealing with such questions as Poultry Culling, Fruit and Vegetable Growing, Judging Courses in connection with Live Stock, Field Days and Sales.

Junior Farmers' Improvement Associations.

The Junior Farmers' organizations continue to grow and extend their usefulness throughout the Province, and at the present time 122 Junior Farmers' Improvement Associations have been organized with 3,112 members.

The following Junior Farmers' Improvement Associations were organized at the conclusion of the short courses in Agriculture during January, 1923:

County	Name of Organization	Membership
Bruce	Walkerton J.F.I. Association	30
"	Arkwright J.F.I. Association	28
Dufferin	Laurel J.F.I. Association	25
Durham	Blackstock J.F.I. Association	40
Elgin	Corinth J.F.I. Association	12
Essex	St. Joachim J.F.I. Association	....
Frontenac	Parham J.F.I. Association	23
Grey	Thornbury J.F.I. Association	15
Kent	Merlin J.F.I. Association	22
Lambton	Wanstead J.F.I. Association	27
Leeds	Mallorytown J.F.I. Association	22
Norfolk	Windham J.F.I. Association	15
Ontario	Greenbank J.F.I. Association	22
Oxford	Mount Elgin J.F.I. Association	49
Perth	Stratford J.F.I. Association	21
"	Kirkton J.F.I. Association	12
Prescott and Russell	Alfred J.F.I. Association	43
Simcoe North	Sunnidale J.F.I. Association	50
Simcoe South	Bradford J.F.I. Association	22
"	Alliston J.F.I. Association	24
"	Thornton J.F.I. Association	31
Sudbury	Verner J.F.I. Association	22
Welland	Stevensville J.F.I. Association	15
Wellington	Rockwood J.F.I. Association	45

Junior Farmers' and Junior Women's Institute Members Trip to Chicago.

The party from Ontario attending the International Live Stock Exposition and Boys' and Girls' Club Congress in December, 1923, consisted of twelve boys and four girls who had been winners in judging competitions or coaches of winning judging or demonstration teams at school fairs, the prize for which consisted of travelling expenses for this trip to Chicago. The Canadian National Railways supplied a special coach for the party which was in charge of Mr. W. G. Marritt, Agricultural Representative for Wentworth county, Hamilton, Ontario, and Miss Ethel Chapman, Institutes Branch, Department of Agriculture, Toronto. During their stay in Chicago the Ontario party took part in the activities of the Boys' and Girls' Club Congress, visiting the International Stock Exposition, the Packing Plants, the International Harvester Company, the financial district, and other points of interest.

List of members of Chicago party with competition in which prize was won and the donor of the prize:

Name and Address	Competition	Donor
Harry I. Seymour, Cavan	Annual Stock Judging Competition	Local contributions
Fred Irvine, No. 6 Brampton	Boys' Stock Judging Competition	J.F.I.A. Judging Prize Fund
Jack Fraser, No. 3 Streetsville	Boys' Stock Judging Competition	J.F.I.A. Judging Prize Fund
Olive Hewson, No. 4 Brampton	Home Economics Judging Competition	J.F.I.A. Judging Prize Fund
Irene McIlwrick, Streetsville	Home Economics Judging Competition	J.F.I.A. Judging Prize Fund
Everal Patton, Thornton	S. Simcoe Stock Judging Competition	Municipal Bankers' Corporation., Toronto, per T. A. Neely
David McDonald, New Dundee	Waterloo County Stock Judging Competition	Waterloo Trust & Saving Company, Waterloo
Roy Stoltz, No. 1, Ayr	Waterloo County Stock Judging Competition	J. M. Schneider Packing Company, Kitchener
Orvall Bell, Glanford Station	Spring Live Stock Judging Competition	Royal Bank
Neil Flatt, Waterdown	Fall Live Stock Judging Competition	Junior Farmers' Improvement Association
Donald, Stewart, Puslinch	School Fair Live Stock Judging Competition	School Section.
Bessie Clark, Smithville	Judging of Home Economics	*Hamilton Spectator*
Miss McConnell, Dundas	Coached Home Canning Team	School Section.
R. E. Mobray, Brooklin, No. 1	Ontario County Live Stock Judging Competition	Ontario County Council
Russell Boynton, Gormley	York County Live Stock Judging Competition	County J.F.I. Association.
Dick Baycroft, Aurora	York County Live Stock Judging Competition	County J.F.I. Association.

Junior Farmers' Field Days.

The Inter-County Field Day of the Junior Farmers' Improvement Associations and Junior Women's Institutes for Western Ontario was held at the Canadian National Exhibition grounds, Toronto, on June 20th, 1923. The main representation came from the counties of Halton, Peel, Wentworth, and York. A very keenly contested sports programme for both boys and girls was carried out during the afternoon. The Junior Farmers' Field Day for Eastern Ontario was held at the Kemptville Agricultural school on June 12th, 1923. The young people were provided with a picnic lunch by the Kemptville Agricultural School, after which they were shown over the school farm and buildings. During the afternoon a sports programme for both boys and girls was conducted and all events were keenly contested. In addition to these two regional field days, the various county organizations of Junior Farmers' Associations and Junior Women's Institutes conduct local field days which have proven very popular and beneficial in developing the athletic talents of the young people in the rural districts.

Junior Farmers' Plowing Competitions.

The Junior Farmers' Plowing Competitions continue to be very popular with the junior farmers throughout the Province, and the good they are doing in promoting better plowing is attested to by the reports of the judges and others who have had an opportunity to observe the plowing over a period of years in sections where plowing competitions are being conducted. The plowing competitions are conducted and financed by the local junior farmers' organizations, except that during the past two years, the Department of Agriculture has given equal to one-half of the total prize money paid, the grant to any one association not to exceed $25.00.

JUNIOR FARMERS' PLOWING COMPETITIONS, 1923.

County	Name of Organization conducting Competition	No. of Competitors	Amount of Prize Money Paid	Amount of Grant
Brant	Brant County Junior Farmers	14	$14 00	$7 00
Bruce	Walkerton Junior Farmers	11	49 00	24 50
"	Ripley Junior Farmers	6	36 00	18 00
"	Port Elgin Junior Farmers	9	49 00	24 50
"	Paisley and Arkwright Junior Farmers	7	36 00	18 00
Carleton	Huntley and Fitzroy Junior Farmers	20	60 00	25 00
Grenville	Grenville Junior Farmers	34	84 00	25 00
Huron	Stephen and Usborne Junior Farmers	5	13 00	6 50
Leeds	Leeds	16	49 00	24 50
Lincoln	Lincoln Junior Farmers	10	66 00	25 00
Peel	Peel County Junior Farmers	25	102 00	25 00
North Simcoe	Sunnidale Junior Farmers	5	17 50	8 75
Waterloo	Elmira and Woolwich Junior Farmers	8	30 00	15 00
"	Ayr Junior Farmers	9	29 00	14 50
York	York County Junior Farmers	23	68 00	25 00
Total, 15		202	$702 50	$286 25

Grenville county affords a good example of the interest taken in Junior Farmers' Plowing competitions and the success which they may achieve. In this competition, three classes were provided: single plows in sod, single plows in stubble and two-furrow plows in stubble. Thirty-four contestants competed, each plowing a two-acre block of land in the competition for single plows, and a three-acre block in the two-furrow plow competition. Thirty-seven blocks in all were judged as some of the contestants plowed in two classes.

Junior Farmers at the Provincial Plowing Match.

The Department of Agriculture by means of the funds provided to encourage local plowing matches and competitions, arranged to pay the expenses of the winners at local plowing competitions, together with their equipment, to the Provincial Plowing Match at Sarnia, Ontario, to participate in the Provincial competition. Seventeen junior farmers, who were winners in local plowing competitions, took advaptage of this assistance and competed at the Provincial match. These junior farmers made a very creditable showing, winning among other prizes, the tractor plowing championship.

Intercounty Live Stock Judging Competitions.

Intercounty Live Stock Judging competitions were conducted during 1923 at the Royal, Guelph, and Ottawa winter fairs. The regulations governing the judging competition at the Royal Agricultural Winter Fair, Toronto, were changed, providing for teams of three instead of five junior farmers as was the case in 1922. At the Royal Winter Fair, this competition was open to all counties in the Province, while the Guelph competition was open to teams from the counties of Victoria, Durham, and West; and the Ottawa competition to teams from the counties of Peterborough, Northumberland, and East. The winning teams at the regional competitions at Guelph and Ottawa compete for the Provincial championship, for which the Union Stock Yards Company of Toronto have donated a handsome trophy. Thirty-three teams competed at the Royal, twenty-five at Guelph, and ten at Ottawa this year.

INTER-COUNTY LIVE STOCK JUDGING COMPETITION HELD AT ROYAL WINTER FAIR, TORONTO, NOVEMBER 19th, 1923

County Standing	Horses	Beef Cattle	Dairy Cattle	Sheep	Swine	Total
1. York	470	531	467	426	394	2,288
2. Wentworth	472	491	443	445	430	2,281
3. Middlesex	404	476	465	433	488	2,266
4. Wellington	464	502	461	388	445	2,260
5. South Simcoe	436	505	388	488	382	2,199
6. Peel	480	469	422	429	382	2,182
7. Oxford	403	453	422	516	387	2,181
8. Grey	362	453	482	379	465	2,141
9. Perth	374	509	399	384	465	2,131
10. Victoria	473	492	374	416	366	2,121
11. Lincoln	417	464	383	378	467	2,109
12. Lanark	378	437	394	375	502	2,086
13. Lambton	351	460	419	386	467	2,083
14. Carleton	472	402	405	366	421	2,066
15. Norfolk	336	452	403	404	469	2,064
16. Grenville	342	500	407	413	376	2,038
17. Ontario	368	485	360	405	419	2,037
18. Northumberland	390	417	445	342	429	2,023
19. Waterloo	387	464	418	331	422	2,022
20. Bruce	386	476	452	351	306	1,971
21. North Simcoe	396	427	319	368	459	1,969
22. Brant	323	481	351	399	404	1,958
23. Durham	378	444	344	448	335	1,949
24. Elgin	274	456	397	406	416	1,949
25. Essex	367	484	357	361	376	1,945
26. Welland	398	392	374	324	437	1,925
27. Halton	303	458	374	376	396	1,907
28. Leeds	353	441	309	382	401	1,886
29. Peterboro	280	507	328	388	383	1,886
30. Huron	356	444	305	371	402	1,878
31. Hastings	305	427	311	347	389	1,779
32. Lennox and Addington	326	473	292	351	336	1,778
33. Prince Edward	270	352	280	273	312	1,487

The Jeffrey Bull Memorial Trophy—won by York County.
Members of the winning team—Lambert Wilson, Aurora, Ontario.
Dick Baycroft, Aurora, Ontario.
Tom Hastings, Markham, Ontario.

Winning team coached by R. J. Rogers, Agricultural Representative for York County.

INTERCOUNTY LIVE STOCK JUDGING COMPETITION HELD AT GUELPH WINTER FAIR, DECEMBER 4th, 1923.

County Standing	Horses	Beef Cattle	Dairy Cattle	Sheep	Swine	Total
1. Wellington	463	484	440	564	394	2,345
2. Perth	424	483	481	515	292	2,195
3. York	357	423	398	553	387	2,118
4. Wentworth	351	425	435	550	353	2,114
5. Victoria	430	378	417	515	363	2,103
6. Oxford	381	420	464	549	274	2,088
7. Waterloo	346	468	407	504	357	2,084
8. Bruce	423	393	471	509	250	2,046
9. Peel	331	377	484	511	319	2,022
10. North Simcoe	344	454	476	478	265	2,017
11. Ontario	293	446	379	519	317	1,954
12. Middlesex	442	399	379	489	240	1,949
13. Durham	286	433	485	507	205	1,916
14. South Simcoe	364	394	341	520	296	1,915
15. Grey	302	402	464	471	276	1,915
16. Norfolk	311	418	413	502	254	1,898
17. Brant	323	435	362	498	271	1,889
18. Haldimand	342	365	411	487	281	1,886
19. Elgin	391	369	366	484	267	1,877
20. Kent	330	347	354	476	370	1,877
21. Huron	308	431	410	432	261	1,842
22. Halton	300	372	382	493	270	1,817
23. Lincoln	282	422	388	454	267	1,813
24. Lambton	305	384	349	466	271	1,775
25. Essex	298	290	329	432	234	1,583

Hon. Manning W. Doherty Trophy—won by Wellington County.
Members of the winning team—Wallace Barbour, Hillsburg, No. 1.
Peden Connell, Palmerston, No. 3.
Fred Miller, Belwood.
Winning team coached by R. H. Clemens, Agricultural Representative for Wellington County.

LIVE STOCK JUDGING COMPETITION OTTAWA WINTER FAIR, JANUARY 16TH AND 17TH, 1924.

County	Heavy Horses	Beef Cattle	Dairy Cattle	Sheep	Swine	Total
Lanark	399	442	518	424	506	2,289
Grenville	384	421	395	512	494	2,206
Hastings	418	448	447	406	470	2,189
Renfrew	392	464	364	465	497	2,182
Carleton	415	471	343	468	424	2,121
Lennox and Addington	381	396	369	448	443	2,037
Peterborough	378	383	400	399	448	2,008
Dundas	352	384	407	416	434	1,993
Frontenac	356	380	280	417	464	1,897
Leeds	318	341	391	410	424	1,884

The Peter White Trophy—won by Lanark County.
Members of the winning team—Cecil Turner, Almonte No. 4.
Harry McArton, Almonte, No. 4.
Harold Duncan, Almonte, No. 3.
Winning team coached by F. Forsyth, Agricultural Representative for Lanark County.

Championship Judging Competition.

Through the generosity of the Union Stock Yards and Abattoirs a handsome silver trophy was offered for the Championship Live Stock Judging team in the Province. The winners of the Doherty trophy at the Guelph Winter

Fair and the White trophy at the Ottawa Winter Fair came together March 11th and 12th, 1924, at Toronto, and the following classes of stock were judged in York county:—

Heavy Horses:	Draught Geldings	R. J. Fleming, Donlands.
	Clydesdales Mares	E. T. Stephens, Richmond Hill.
Beef Cattle:	Shorthorn Cows and Shorthorn Heifers	Don Alda Farm, property of D. A. Dunlap, Todmorden.
Dairy Cattle:	Jerseys	R. J. Fleming.
	Holsteins	W. L. Shaw, Newmarket.
Sheep:	Leicester Ewes	Don Alda Farm.
	Market Lambs	Union Stock Yards.
Swine:	Yorkshire Brood Sows	Don Alda Farm.
	Bacon Hogs:	Union Stock Yards.

The summarized score shows how Lanark won by 41 points—2,051 out of a possible 3,000:—

County	Contestant	Horses	Beef	Dairy	Sheep	Swine	Total
Lanark....	Cecil Turner, Almonte...	134	100	129	142	135	640
	Harry A. McArton, Almonte.....	155	110	172	141	142	720
	H. Duncan, Almonte....	131	107	157	156	140	691
							2,051
Wellington.	Wallace Barbour, Hillsburg.....	98	117	161	110	156	642
	Peden Connell, Palmerston.....	148	162	140	164	132	746
	Fred Miller, Bellwood...	95	152	133	121	121x	622
							2,010
	Lanark.....	420	317	458	417	439	2,051
	Wellington.....	341	431	434	409	395	2,010

Besides donating the trophy the Union Stock Yards and abattoirs paid the expenses of the members of the competing teams and gave tham a banquet at the King Edward Hotel, at which the trophy was presented to the winning team from Lanark county.

This trophy is to be won three times before it becomes the property of any one county.

Live Stock Judging Competitions at Fall Exhibitions.

The three major autumn exhibitions in Ontario held at Toronto, London, and Ottawa offer substantial cash prizes for individual Live Stock Judging Competitions. These competitions have been popular and a large number of junior farmers have taken advantage of the opportunities which they afford to secure training and experience in the judging of live stock. At the Canadian National Exhibition the Judging Competition includes in addition to live stock, poultry, roots and grain, and fruit and vegetables. The Canadian National Exhibition offers $1,360.00 in cash prizes for the Judging Competition for Junior Farmers; Ottawa, $495.00 and London, $170.00; and the following number of young men took part in these competitions in 1923; Toronto, 291; Ottawa, 68, and London, 105.

A considerable number of Agricultural societies conducting fall fairs throughout the Province also offers prize money for live stock judging competitions.

The Exhibition Association at Sherbrooke, Quebec, offered prizes for a live stock judging competition open to county teams of three young men under twenty-six years of age. The officials of the exhibition conducting this competition solicited entries from Ontario and in response the Agricultural Representative for Grenville county entered a team of junior farmers which carried off the silver shield for the highest score. The following is from the Agricultural Representative's report of this competition:—

"Wednesday morning early I left with my judging team, namely: Stanley Ralph, Willard Shannon, and Arthur Runions, for Sherbrooke Fair, where I had entered them in the Inter-county Judging Competition. The boys did well in the competition considering that they had very little practice before taking part. We won first as a county, being ninety-nine points ahead of Chateauguay County which was the nearest competitor. The prize is a silver shield. The boys will get silver medals and cash prizes as well. Their competition is slightly different from ours in that college men, that is under-graduates, are eligible, and a team is not disqualified after having competed one year; they may come back several times as long as the indvidiual members are under twenty-six years of age."

Profit Competitions.

Profit competitions open to junior farmers under thirty years of age were conducted throughout the Province again last year. The prize for the winner in each competition was the same as formerly, transportation and board and lodging for two weeks while attending one of the short courses at the Ontario Agricultural College, Gueph, or the short course in General Agriculture at the Agricultural School, Kemptville. The competitions in 1923, included the following:—

	No. of Competitions	No. of Contestants
Acre Profit Competitions with Oats	7	36
" " " " Potatoes	7	47
" " " " Seed Corn	3	10
" " " " Silage	2	9
" " " " Mangels	1	4
" " " " Turnips	2	8
" " " " Beans	1	4
" " " " Wheat	1	5
Dairy Profit Competitions	1	6
Baby Beef Competitions	7	50
Feeding Hogs for Profit	14	73
Steer Feeding	1	1
Total	47	253

Acre Profit Competitions.

The prize in each acre profit competition was awarded to the contestant showing the largest net profit after deducting all production costs from the total value of the crop produced. In calculating the cost of production and profit the following values were used:—

1. *Man and Horse Labour*
   Man labour to be reckoned at 25 cents per hour.
   Horse labour to be reckoned at 15 cents per hour.
2. *Fertilizer*
   Barnyard manure applied to this crop at $1.00 per ton of two-horse load.
   Barnyard manure applied to previous crop at 50 cents per ton of two-horse load.
   Commercial fertilizer applied to this crop at two-thirds of cost price.
3. *Rent of Land.*
   To be computed on the basis of eight per cent. of the selling value of the land, this to be figured by the Representative and the Junior Farmers' Improvement Association.

	Value Seed Used in Planting	Value Product Harvested.
Turnips	$1 00 per lb.	12½c per bushel
Mangels	50 " "	12½c. per "
Potatoes	1 50 " "	75c " "
Spring Wheat	2 00 " "	95c. " "
Oats	1 00 " "	40c. " "
Barley	1 35 " "	60c. " "
Field Beans	3 50 " "	$3 25 " "
Corn for seed	2 00 " "	95c. " "
Corn for Silage	1 50 " "	$5 00 " ton
Field Peas	3 50 " "	2 00 " bushel

County and Winner	Yield in bushels per acre	Value	Cost of Production	Profit
Oats—				
LAMBTON:				
John H. Hodgins, Wyoming, R. R. No. 2	68.2	$27 28	$17 82	$9 46
BRUCE:				
Irwin Vance, Tara, R.R. No. 2	75.3	30.11	20.99	9 12
KENT:				
Fred Marshall, Merlin, R.R. No. 5	70	28 00	20 03	7 97
S. SIMCOE:				
Geo. E. Jackson, Alliston, R.R. No. 3	66	26 40	21 97	4 43
PRESCOTT AND RUSSELL:				
Rene Boileau, Alfred	72.5	29 00	25 18	3 82
WELLAND:				
Shelden Nugent, Welland Junction	50	20 00	17 96	2 04
KENORA:				
Leonard Ware, Minnitaki	50	20 00	18 43	1 57
Potatoes—				
FORT WILLIAM:				
Gordon Hanna, Fort William, R.R. No. 1	428	321 00	57 54	263 46
FORT WILLIAM:				
Donald Gillespie, Slate River Valley	340	255 00	52 40	202 60
MUSKOKA:				
Wm. J. Willoughby, Sundridge	368	276 00	82 10	193 90
SUDBURY:				
Philias, Langis, Chelmsford	310.2	232 68	76 26	156 42
S. SIMCOE:				
Nelson Brett, Alliston R.R. No. 4	280	210 00	55 18	154 82
RAINY RIVER:				
Raymond Davis King, Emo	225	168 75	36 65	132 10
HASTINGS:				
Hamilton Donnan, West Huntingdon	260	195 00	75 80	119 20
Seed Corn—				
ESSEX:				
Chas. I. Sylvester, St. Joachim	100	95 00	23 91	71 09
KENT:				
Lewis King, Marlin, R.R. No. 2	64.7	61 47	29 13	32 34
Ensilage—				
MANITOULIN:				
Everett Proctor, Gore Bay	21	105 00	37 07	67 93
KENT:—				
Albert Connor, Merlin, R.R. No. 2	17.6	88 20	25 23	62 97
Mangels (Bushels)—				
DURHAM:				
Harold Muir, Courtice	1,177	147 12	70 37	76 75
Turnips—				
MANITOULIN:				
Lloyd Wagg, Mindemoya	1,194	149 25	53 39	95 86
DURHAM:				
Clarence Marlow, Burketon	1,060	132 50	38 00	94 50
Beans—				
KENT:				
Robert C. Wilkie, Blenheim	29.3	95 23	25 38	69 85
Wheat—				
RENFREW:				
A. Russell Kirk, Douglas	30.4	28 88	15 74	13 14

Baby Beef Competition.

In this competition the prize was awarded on the basis of 75 per cent. for the quality and finish of the animal and 25 per cent. for net profit. Contestants had the privilege of selecting several calves at the time of entering the competition and discarding the less promising ones as they developed. The competition requirements regarding the calves entered were that they be born after September 1st, 1922, and the feeding period be concluded in November, 1923. In calculating the net profit baby beef was valued at $8.50 per cwt. and the feeds consumed as follows: Pasture, 75 cents per month; nurse cow, $5.00 per month.

Ground Oats	$36 00 per ton	Low Grade Flour or Red Dog	$40 00 per ton
Barley	38 00 " "	Tankage	55 00 " "
Ground peas	60 00 " "	Hay	13 00 " "
Ground Wheat	40 00 " "	Alfalfa	15 00 " "
Ground Rye	Actual Cost	Straw	9 00 " "
Ground Corn	42 00 per ton	Silage	5 00 " "
Corn on Cob	Actual Cost	Roots	5 00 " "
Bran	30 00 per ton	New Milk	32 00 " "
Shorts or Middlings	33 00 " "	Skim Milk	5 00 " "
Oil Cake	50 00 " "	Buttermilk	4 25 " "
Cotton Seed Meal	65 00 " "	Whey	2 50 " "
Gluten Feed	42 00 " "	Green Feed	2 00 " "

BABY BEEF COMPETITION, 1923.

County and Winner	Breed	Date of Birth	Weight of Steer	Value	Cost of feed consumed and initial cost of animal	Net Profit	Score
Bruce:							
Bert W. Monk, Elmwood, R.R. 2	Shorthorn Grade	Jan. 4, 1923	880	$74 80	$67 04	$7 76	92.5
Wm. Stanley Tolton, Walkerton, R.R. 3	Shorthorn	Nov. 14, 1922	900	76 50	68 77	7 73	91 3
South Simcoe:							
Varl M. Coutts, Thornton, R.R. 1	Hereford Grade	Nov. 1, 1922	825	70 12	38 33	31 79	89 7
Wellington:							
Howard Barbour, Hillsburg, R.R. 1	Aberdeen Angus	Jan. 9, 1923	700	59 50	32 92	26 58	87
Lambton:							
James Dewar, Wyoming, R.R. 3	Shorthorn Grade	Jan. 1 1923	730	62 05	42 69	19 36	87
Peel:							
Stewart Scott, Belfountain	Shorthorn Grade	Jan. 2, 1923	760	64 60	56 44	8 16	84
Floyd G. Rutherford, Bolton, R.R. 2	Shorthorn Grade	Dec. 28, 1922	738	62 73	90 31	27 58 (loss)	64
Huron:							
E. R. Knight, Brussels, R.R. 2	Shorthorn Grade	Oct. 31 1922	960	81 60	103 48	22 88 (loss)	71.6

Steer Feeding Competition, 1923.

The winner in this competition was decided on the basis of 30 per cent. for highest gain in weight; 40 per cent. for lowest cost per cwt. of gain, and 30 per cent. for value of steer when finished. (Value of finished steer to be decided by an impartial judge.) The feeds consumed were valued as in baby beef competition.

County and Winner	Weight at beginning of feeding period (2 steers)	Weight at finish of feeding period (2 steers)	Gain in weight (2 steers)	Cost of feed	Cost of feed per 100 lbs. gain in weight	Score
	Lbs.	Lbs.	Lbs.			
Ontario:						
William J. Heron, Seagrave, R.R. 1.	2,035	2,806	771	$67 30	$8 73	100

Feeding Hogs for Profit Competition.

Each contestant was required to feed a pen of four bacon hogs from six weeks of age until finished for market and not more than twenty-eight weeks of age. The prize in each competition was awarded on the basis of 60 per cent. for highest net profit per cwt. gain; 20 per cent. for best kept records, and 20 per cent. for greatest gain in weight; except that for light or heavy hogs, two points were deducted for every five pounds or fraction of five pounds under 160 or over 210 pounds. In computing net profit per cwt. of gain, hogs were valued at $9.50 per cwt. and feeds consumed as follows:—

Pasture $1.00 per hog for season.

Grain and other concentrates as for baby beef competition.

FEEDING HOGS FOR PROFIT COMPETITION, 1923.

County and Winner	Length of feeding period	Average weight of hogs alive when marketed	Average gain in weight from six weeks of age	Value per hog of gain in weight	Average cost of feed per hog	Average net profit per hog	Average net profit per cwt. gain
RAINY RIVER: Roy Barker, Devlin	June 3-Oct. 6 125 days	197.3	167.3	$15 90	$7 23	$8 66	$5 17
SUDBURY: Arthur T. Hartwick, Walford	May 21-Sept. 25 127 days	203	175.7	16 69	7 73	8 96	5 10
NORTH SIMCOE: Irwin Rutherford, Orillia, R.R. 3	May 24-Sept. 22 121 days	187.5	163.5	15 33	7 42	8 10	4 95
DUNDAS: Archie B. Casselman, Finch	May 12-Dec. 10 212 days	200	164.2	15 63	7 71	7 91	4 81
KENT: Edward Russell, Charing Cross, R.R. 1	June 14-Oct. 14 122 days	175	151.2	14 37	7 58	6 79	4 49
WELLAND: Lochlan Daboll, Ridgeville, R.R.1.	May 28-Oct. 25 119 days	207.5	176.5	16 76	9 17	7 59	4 30
SOUTH SIMCOE: Hubert McKenzie, Thornton	May 10-Oct. 29 172 days	185	159	15 10	8 29	6 81	4 28
BRUCE: Robert A. Scott, Port Elgin, R.R.1	May 4-Oct. 9 158 days	197.5	174	16 53	9 20	7 32	4 21
William Mills, Ripley, R.R. 2	May 10-Nov. 21 195 days	197.5	177.5	16 86	9 48	7 28	4 15
GRENVILLE: Hugh J. Bruce, Spencerville, R.R. 2	May 18-Oct. 9 144 days	200	170	16 15	9 05	7 10	4 17
ONTARIO: James H. Beaton, Blackwater, R.R. 1	Feb. 26-July 9						

FEEDING HOGS FOR PROFIT COMPETITION, 1923.—*Continued.*

County and Winner	Length of feeding period	Average weight of hogs alive when marketed	Average gain in weight from six weeks of age	Value per hog of gain in weight	Average cost of feed per hog	Average net profit per hog	Average net profit per cwt. gain
WATERLOO:							
Gilbert Snider, Waterloo, R.R. 1.	133 days May 5- Oct. 9	207.5	177.5	$16 86	$10 18	$6 68	$3 76
LAMBTON:							
Esli G. Dodge, Wanstead, R.R. 1.	157 days Mar. 18- Sept. 1	193.7	169.2	16 08	10 94	5 14	3 03
HURON:							
John E. Turner, Seaforth, R.R. 3.	167 days July 25- Dec. 1	202.5	179.5	17 06	11 67	5 38	3 00
	129 days	192.5	158.5	15 07	10 46	4 61	2 91

Dairy Profit Competition.

This competition extended over a period of seven months; and the winner was decided, as in the acre profit competition, on the basis of the greatest net profit as determined by deducting the cost of pasture and feed from the value of the butter fat and skim milk. For the purposes of this competition, butter fat was valued by months as follows: March, 49½ cents per pound; April, 40 cents; May, 31 cents; June, 30½ cents; July, 30 cents; August, 32½ cents; September, 32½ cents; October, 36 cents and November, 37 cents. Skim milk was valued at 30 cents per cwt. Pasture was valued at $1.00 per month, and grain and concentrates as for baby beef competition.

DAIRY PROFIT COMPETITION, 1923.

County and Winner	Value of Feed	Milk Lbs.	Per cent. Fat	Lbs. Fat	Value	Lbs. Skim Milk	Value or Skim Milk	Net Profit
Prescott and Russell: Rene, Boileau, Alfred, R.R. 2.....	$20 90	7,391	3.97	292.15	$97 05	7,105.15	$21 30	$97 45

Boys' and Girls' Club Work.

Club work with boys and girls in Ontario is not making the rapid growth that might be expected when comparisons are made with the development of this work in other provinces and in the United States. The slow development of boys' and girls' clubs may be accounted for by the rapid extension and permanent establishment of rural school fairs throughout the Province. The school fairs function in a similar manner to boys' and girls' clubs, and accomplish similar results. The boys and girls of the Province have entered into the school fair work very enthusiastically and retain their interest from year to year. In all probability these young people would have been equally enthusiastic over club work, as we understand it, if school fairs were not accomplishing the same results with larger units and greater competition and rivalry.

BOYS' AND GIRLS' CLUB WORK, 1923.

County	Name of Club	Date of Organization	Membership	Age of Members	Breed of Live Stock	Average age of Live Stock	Cost	Date of Distribution
PIG CLUBS—								
Bruce	Bruce County Pig Club	1923	17	12-19	Yorkshire	6-10 weeks	$6 00	June 1-15
Grenville	Spencerville Boys' Pig Club	1923	20	15	Yorkshire			
Grey	Euphrasia Pig Club	1923	21	14-19	Yorkshire Berkshire Tamworth	6-8 Weeks	17 00 (for Two)	
Halton	Halton County Pig Club		18					
Hastings	West Huntingdon Boys' and Girls' Club	1923	26	10-18	Yorkshire Tamworth			
Huron	Colborne Pig Club		18					
Leeds	Brockville District Pig Club	1923	16	15-18	Yorkshire	2 months	12 00	
Lennox and Addington	Centreville Pig Club	1923	17	12-18	Yorkshire			
Lincoln	Lincoln County Boys' and Girls' Pig Club	1923	20	12-18	Yorkshire			
Peel	Bolton Pig Club	1923	19	12-18	Yorkshire			
Peterboro	Peterboro Pig Club	1923	22	14-18	Yorkshire	8 weeks		
Rainy River	Emo Pig Club	1923	26	12-16	Yorkshire	6 weeks	$5-$12	June 2nd
	Rainy River Pig Club	1923	23	12-16	Yorkshire	6 weeks	$5-$12	April 31st
Simcoe S	Bradford Boys' and Girls' Pig Club	1923	18	12-18	Yorkshire	3-4 Months	$9 00	July 1st
Victoria	Woodville Pig Club	1923	20	12-17				
Wentworth	Wentworth Pig Club	1923	15		Yorkshire			
York	York County Pig Club	1923	20	12-18	Yorkshire	10 Weeks		

Pig Clubs

(Federal Policy).

Fifteen pig clubs were organized in the spring of 1923 by the Agricultural Representatives under the Boys' and Girls' Pig Club Policy of the Dominion Department of Agriculture. Thirteen of these clubs completed the year's programme of work, and shipped car loads of finished hogs to the Toronto Union Stock Yards to compete in the car lot competition. The thirteen clubs completing the feeding and marketing programme also sent boys to the stock yards to take part in club members' swine judging competition in which forty-three took part.

The pig clubs consisted of from fifteen to twenth-six members, and the number of pigs fed by each club varied from sixty to one hundred and seven. Each club member was required to feed not less than two and no more than six hogs, and to contribute to car load competition whatever number the Agricultural Representative selected from his lot.

All of the prize money for the carload and judging competition and one-third of the prize money for pairs of club members' pigs shown at school, fall or club fairs was paid by the live stock branch of the Dominion Department of Agriculture.

The chief difficulty encountered in this club work has been that of securing pigs of the proper age and development to come along uniformly and finish up for market within bacon weights at the same time. Another difficulty is that of having the pigs from the different clubs finish within bacon weights at time of the date set for marketing.

The following table gives the results of the car lot competition and the prices obtained for each car load when sold:—

PIG CLUB DAY, OCTOBER 11TH, 1923.

County	Name of Club	No. of Members	No. of Hogs Shipped to Market	Originally	No. of Contestants in Judging Contest	Standing in Carload Competition	Selling Price.
S. Simcoe	Bradford	18	60	98	15	1st.	$11 00 Swifts.
York	York	20	60	87	3	2nd	9 75 Davies.
Halton	Halton	18	60	113	18	3rd	9 90 Davies.
Lincoln	Lincoln	20	60	70	3	4th	9 95 Harris.
Victoria	Woodville	20	61	66	6-8	5th	9 55 Gunns
Bruce	Walkerton and Port Elgin	17	66	75	6-8	6th	9 85 Can. Pac. Co.
Wentworth	Wentworth	15	60	.....	3	7th	10 00 Can. Pac. Co.
Hastings	Hastings	26	60	75	.....	8th	9 75 Harris
Lennox and Addington	Centreville	17	65	79	3	9th	9 85 Can. Pac. Co.
Peel	Bolton	19	60	107	6-8	10th	9 45 Harris.
Grenville	Spencerville	20	60	80	3	11th	9 35 Swifts.
Huron	Colborne	18	53	85	5	12th	9 75 Davies.
Leeds	Brockville District	16	65	69	3	13th	9 00 Gunns.
							8 20 Harris.

Farm Labour.

The farm labour situation throughout the season was quite acute during 1923. The demand for labourers in towns and cities, and for industrial workers generally tended to attract from the farms many men who might under ordinary circumstances have been available for farm work. Farmers were anxious to secure reliable farm help and were prepared to pay wages consistent with the price of agricultural produce, but they were reluctant about engaging inexperienced farm help.

The Agricultural Representatives generally did considerable work in securing farm labour and co-operated as far as possible with the Ontario Department of Colonization and Immigration, the Federal Department of Immigration, the Immigration Departments of the Railways and the Salvation Army in placing farm labourers on the land.

The wages offered by farmers for farm help varied considerably throughout the Province, but most fell between the following ranges: Married men, $500 to $650 per year, cottage included; single men, experienced, $30 to $40 per month; single men, partly experienced, $25 to $30 per month; single men, inexperienced, $15 to $25 per month.

Experimental and Demonstration Work.

A variety of experiments and demonstrations were conducted by the Agricultural Representatives during 1923 with the view to demonstrating to the farmers under their local conditions, the value of certain crops, cultural methods, control measures for plant diseases and insect pests, and other farm practices. In co-operation with the Department of Chemistry, Ontario Agricultural College, a series of experiments were conducted throughout the Province with lime and commercial fertilizers, the results of which will be announced from the Agricultural College. Valuable results have been obtained in Halton county from pruning demonstrations, in Lincoln county from demonstrations in dusting cucurbits, and Lennox and Addington from demonstrations in treating grain for smut.

In Northern Ontario the farmers continue to grow sunflowers as a silage crop, and in many cases are securing very good results. In some sections farmers have become convinced of the value of sunflower silage and are making provision to take advantage of this succulent crop for winter feeding. The number of silos has therefore increased considerably during the past year in Northern Ontario, and pit silos are being brought into use for the first time.

Potato Demonstrations.

For the past six years, practical demonstration plots have been conducted in twenty counties with the object of determining the best source of seed potatoes for the growers of Ontario.

The demonstration plots were planted with certified seed from Northern Ontario, Prince Edward Island, selected districts in Old Ontario, and local common seed. The varieties tested were the Irish Cobbler, Green Mountain, and Dooley.

The staff of potato inspectors from the Horticultural Department of the Ontario Agricultural College, Guelph, attended to the treating of the seed for scab, rhizoctonia, etc., and assisted the Agricultural Representatives to plant out the plots. The Department of Botany, Ontario Agricultural College, Guelph, checked up the various plots for disease. All plots were to receive the same treatment as to manuring, cultivation, and spraying, andt he Agricultural Representatives calculated the yields when the potatoes were being dug.

The following tables give the results in detail:—

TABLE 1.

County	Northern Ontario			Maritime			Old Ontario Selected			Old Ontario Common		
	Leaf Roll %	Mosaic %	Yield per Acre Bush.	Leaf Roll %	Mosaic %	Yield per Acre Bush.	Leaf Roll %	Mosaic %	Yield per Acre Bush.	Leaf Roll %	Mosaic %	Yield per Acre Bush.
Green Mountains												
Bruce	....	....	114.5	....	....	110	5	6	92.5	3	1.5	138.5
Carleton	....	....	153	....	1	157	7	6.5	178	8	11.5	142
Haldimand	....	....	129.3	....	....	152	3.5	1.5	178.6	8	10.5	160
Hastings	1.5	....	242.2	.5	1	229.6	4.5	4	274.2	7	12	240
Kent	....	....	212.5	....	....	201.29	....	....	235.95	....	....	....
Middlesex	....	....	378	....	....	366	2	1	360	3.5	....	208
Ontario	....	....	205.4	.5	1	232.7	1.5	4.5	265.8	6.5	12.5	270.6
Peel	....	....	370.4	....	....	335.5	2.5	1.5	336.8	14.5	6	242
Prince Edward	....	....	350	3	.5	366	8.5	4	383	9.5	9	366
Renfrew	1.5	....	135	1	.5	116	5	3.5	118	10.5	1.5	112
North Simcoe	....	.5	195	....	....	188	1	2	161	16.5	7.5	203
Welland	....	....	211.2	....	....	218.6	6.5	8.5	193	8	12	144
Average	.25	.04	224.	.41	.33	222.7	3.09	3.05	231.4	7.	7.	202.3
Irish Cobblers												
Bruce	....	....	81	....	....	91.5	4.5	2.5	72	4	3.5	95
Carleton	....	....	130	1.5	....	137	8.5	4	150	15.5	13	211
Haldimand	....	....	102.6	....	....	82.6	5.5	7.5	152	14	7	108
Hastings	....	....	204	.5	....	174.4	5.5	4	185	7	4	163.2
*Kent	....	....	206	....	....	193.65	....	....	214.05	....	....	....
Middlesex	1	....	254	.5	....	216	3	....	224	7.5	....	159
Ontario	....	....	149.8	....	....	145	5	5	137.4	15	18	145
Peel	....	....	233.6	....	....	228.5	4	.5	241.4	11.5	3	220.7
Prince Edward	.5	....	266	3	....	275	7	5.5	283	16	9.5	216
Renfrew	1	....	163	2	....	173	6	1.5	155	8.5	3	158
N. Simcoe	....	....	83	....	....	123	6	2	84	15	6	150
Welland	....	....	129	....	....	130.6	3	2	128.5	7	10	133.3
Average	.2	....	166.8	.62	....	164.1	.4	2.8	168	10	6.4	159.8

*No data available for disease inspection.

TABLE NO. 2

County	Northern Ontario			Old Ontario		
	Leaf Roll %	Mosaic %	Yield per Acre Bush.	Leaf Roll %	Mosaic %	Yield per Acre Bush.
Dooley						
Bruce	.5	.5	107.5	....	....	84
Carleton	3.5	1.5	149	7.5	3.5	162
Haldimand	.5	....	148	1	.5	142
Hastings	1.5	....	228	4	.5	213.1
Kent	....	....	168.17	....	....	174.28
Middlesex	....	....	356	1	....	364
Ontario	....	....	174	4	5	169.1
Peel	....	....	174.2	....	....	233.6
Prince Edward	1.5	1	350	3.5	1	383
Renfrew	2	.5	162	4.5	.5	166
North Simcoe	....	....	153	1.5	....	176
Welland	....	....	213.3	1.5	.5	209
Average	.79	.29	198.5	2.3	.95	206.3

TABLE 3.—AVERAGE YIELD IN BUSHELS PER ACRE OF POTATO DEMONSTRATIONS, 1918-1923.

Number of demonstrations	Year	Green Mountains.			Irish Cobblers.			Rural New Yorker (Dooley)	
		Northern Ontario	Maritime	Old Ontario Selected	Northern Ontario	Maritime	Old Ontario Selected	Northern Ontario	Old Ontario
22	1918	174.9	141.3	168.0	154.7	148.8	122.8	.....	.....
24	1919	169.5	168.7	166.0	131.8	107.6	120.4	.....	.....
11	1920	218.3	214.7	215.8	198.0	210.1	201.1	210.7	202.3
12	1921	182.7	166.4	170.7	155.5	148.5	146.2	132.8	146.9
13	1922	218.1	195.4	203.0	197.1	191.2	200.4	187.3	204.6
12	1923	224.0	222.7	231.4	166.8	164.1	168.0	198.5	206.3
Average	....	197.9	185.0	192.5	167.3	161.7	159.8	182.3	190.0

The results in each of the last six years clearly show that certified seed potatoes give much better results than the ordinary uncertified seed; that Northern Ontario certified seed potatoes give on the average slightly better yields than certified seed from the Maritime Provinces; and that excellent seed potatoes can be produced by careful and continued roguing in certain districts in Old Ontario.

With the Irish Cobbler variety the test shows that the Northern Ontario certified seed with an average yield of over 167.3 bushels per acre for all plots for the six years is the best; the Maritime seed and certified seed from Old Ontario about even with 161.7 and 159.8 bushels per acre respectively, the average yield for common stock of this variety would be less than 120 bushels per acre for this province during the same period. The Old Ontario certified Irish Cobbler seed from the Hillsburg district averaged highest for 1923 with 168 bushels per acre, Northern Ontario averaged 166.8, and Prince Edward Island, 164.1.

With the Green Mountain variety the test shows that Northern Ontario certified seed is the best with an average yield of 197.9 bushels per acre over the six years, period; Old Ontario certified from selected districts next with 192.5 and Maritime seed with 185 bushels per acre. The highest average yield of Green Mountain for the 1923 season was from Old Ontario certified seed from the north of Hastings county with 231.4 bushels per acre. The average yields for common seed would run around 125 bushels per acre in this province.

With the Dooley variety, as usual certified seed from the Caradoc district of Old Ontario was ahead this season. Of Dooleys grown in the north, the figures are 206.3 bushels for Old Ontario, 198.5 bushels for northern. Four years' average with this variety are 190 bushels for Old Ontario and 182 for Northern. This late variety does not appear to give such good results from the North as the Irish Cobblers and Green Mountains.

Another test carried out was Dooley certified seed against ordinary local seed of any variety. Dooleys averaged thirty bushels per acre over all other varieties in a three-year test, the figures this season were 184.8 against 169.6 bushels in favour of the certified seed.

The following table gives the results for 1923:—

TABLE 5.—COMPARISON OF DOOLEY CERTIFIED SEED WITH COMMON SEED

County	Old Ontario Dooley Selected Seed	Common Seed	
	Yield in Bushels per Acre	Yield in Bushels per Acre	Variety
Brant	154	48	Green Mountain
Elgin	147 (97%M)	140.5	Dooley (97%M)
Huron	158 (100%M)	175	100%M.
Oxford	150 (100%M)	120	Mixed (91.5%M)
Wentworth	285	300	Hustlers
York	215 (80%M)	234	World Wonder (85%M)
Average	184.8	169.6	

From a disease standpoint it is interesting to note that one set of Green Mountain plots that averaged 3.09 per cent. Leaf Roll and 3.05 Mosaic gave a

yield of 231.4 bushels per acre while the same variety of common seed grown alongside them average 7 per cent. Leaf Roll and 7 per cent. Mosaic yielded only 202 bushels per acre.

It has been observed that in some parts of the Province, notably the southern and south-western districts, the best of seed breaks down to Leaf Roll and Mosaic within two or three years, and in some cases the first season; therefore this should be taken into consideration by the growers in affected districts and an effort made to import their seed from the more favoured districts each year if necessary, to keep up their yields per acre and so make the growing of potatoes more profitable to themselves than at present.

Sheep Improvement Work.

The sheep promoters for Ontario of the Dominion Department of Agriculture again co-operated very generously with the Agricultural Representatives in sheep improvement work. The demonstration work in dipping, docking and castrating of lambs was continued and extended not only in counties where work has been previously carried on but in new territory as well. The establishment of permanent concrete dipping tanks was also extended very considerably particularly in counties where the value of dipping had been previously demonstrated. The farmers own and control these permanent dipping tanks and the cost to them for dipping materials is usually from three to four cents per animal. The following is a partial list of the number of sheep dipped throughout the Province during 1923: Brant, 2,000; Dufferin, 640; Grey, 2,347; at demonstrations and 3,000 in farmer's tanks; Huron, 500; Frontenac, 565; Peel, 428; North Simcoe, 1,200; South Simcoe, 1,417; and Renfrew, 1,497.

The ram clubs organized in Lennox and Addington, Lanark and Renfrew, carried on during 1923 with very satisfactory results, and the financial returns of previous years have clearly demonstrated it pays to dip, dock, and castrate and properly manage the farm sheep flock. Lamb fairs were held in Dufferin and Lanark counties. The Agricultural Societies and sheep division of the Dominion Department of Agriculture co-operated in this work. Prizes were offered for groups of ten and groups of five market lambs, also best wether lamb and for ram and three ewe lambs of his get by grade ewes. At both these lamb fairs some really excellent lots of commercial lambs were exhibited and the beneficial results of the educational work which preceded were very clearly demonstrated. At the Dufferin Lamb Fair the champion wether lamb sold for 15 cents per pound, the other prize winning lots at $12.50 per cwt., and the balance at $11.75 per cwt. The Lanark county lambs were sold by tender at the fair, the prize lambs realizing $11.75 per cwt., and the other choice lambs $11.20 per cwt. The Renfrew Ram Club shipped their market lambs direct to the Union Stock Yards where they sold for $11.75 per cwt., which was 50 cents above the ruling market price on the date of sale. In all cases where sheep improvement work has been carried on, and the farmers have shipped their lambs to market, they have invariably secured a premium over prevailing prices.

Swine Improvement Work.

In addition to the swine courses conducted at the packing plants, and the special two day courses held in conjunction with the courses in Agriculture, many of the Agricultural Representatives have promoted swine improvement work generally throughout their counties. Hog grading has been given special

attention in many cases and a considerable number of hog grading demonstrations were held at railway stations on live stock shipping days. In this way the system of hog grading and its benefits were brought to the attention of farmers, many of whom are now seeking to have their hogs sold on grade.

The East Flamboro Agricultural Society co-operating with the Agricultural Representative in Wentworth county and the live stock branch of the Dominion Department of Agriculture, conducted a bacon hog show at Flamboro station on October 17th, 1923. Prizes were offered for boars and sows in groups and singles shown by members of the bacon hog clubs in Wentworth county. There were also market classes for groups of six bacon hogs, pairs of bacon hogs, and four pigs under six months the progeny of one boar. There was a large number of entries at this show and some excellent animals shown in both the breeding and market classes, and one of the outstanding features of the show was the class for boar and two sows shown by Wentworth bacon hog clubs. A carload of hogs, which had been shown in the market classes at this show, was shipped to the Duff packing plant in Hamilton and graded out 88 per cent. selects. The champion bacon hog sold at auction in Hamilton a few days after the Flamboro show at $20.00 per cwt.

Live Stock Improvement.

The Live Stock Improvement campaign, or the elimination of scrub sires from the herds and flocks on Ontario farms, has been continued and extended from year to year since 1919. A considerable number of county live stock improvement associations have been organized to carry on this work. Where improvement associations have been formed the live stock improvement work is being undertaken in a systematic way not only for immediate activity but for carrying on from year to year with a definite follow-up programme. The live stock census taken each year by the assessors in well organized counties provides the information for planning a live stock improvement campaign, and then in following years furnishes a check on results obtained and a basis for planning follow-up work. Oxford county reports that grade bull owners have been reduced from 27.5 per cent. in 1921 to 19.5 per cent. in 1923, with a reduction of 205 in the number of grade bulls owned. Essex county reports that during the campaign in the spring of 1923, fifty-eight pure-bred bulls were placed and eighty-nine sires were disposed of.

The progress of live stock improvement work is of necessity slow and requires very careful planning and persistent pressure and continuous publicity. The co-operation of the breeders of pure-bred stock is very essential in order that only such pure-bred sires as will improve grade herds are used to replace scrub sires. A danger in this connection is shown by the conditions in one county where an improvement campaign was started, and sixty pure-bred bulls were offered within the county to replace scrub sires. After a careful inspection of these pure-breds, it was found that only six were considered of sufficient merit to be placed at the head of grade herds.

Poultry Improvement.

The demand for information and assistance in poultry culling increases each year, and many Agricultural Representatives find it impossible to meet all the demands to visit individuals and give information on this work. To

meet this demand demonstrations were conducted throughout the Province during the past year, and many private homes visited for the purpose of explaining and demonstrating the principles and methods of poultry culling.

Organized poultry culling campaigns were conducted in a number of counties, and in the counties of Durham, Lennox and Addington, and Oxford the organization extended to include the marketing of the cull birds. Oxford county shipped two carloads of cull hens to the New York market, Durham county one carload to Montreal, and in Lennox and Addington county the cull fowl were marketed through a local poultry fair.

In Lennox and Addington the Agricultural Representative succeeded in having a community hatchery established where eggs were hatched for six cents each with minimum lots of 100 eggs. In all, 9,058 chicks were hatched on this basis for farmers throughout the district surrounding Napanee.

Grasshopper Control in Northern Ontario.

During 1921 and 1922 serious grasshopper outbreaks occurred on Manitoulin Island causing a great deal of damage to farm crops. In 1921 no control measures were adopted, but in 1922 the Northern Development Branch of the Department of Lands and Forests supplied white arsenic without charge to farmers who agreed to apply it for grasshopper control under the direction of the local Agricultural Representative. The grasshopper outbreak in 1922 did considerable damage to farm crops, but was quite effectively controlled where farmers treated the infested areas systematically and as directed by the local Agricultural Representative. Complete control of this pest on Manitoulin Island is more or less impossible on account of the large areas of waste land which forms a breeding ground. In the spring of 1923, as a precautionary measure, twenty-five tons of white arsenic were shipped to Manitoulin by the Northern Development Branch for distribution to the farmers, under the direction of the local Agricultural Representative, for poison bait in case another grasshopper outbreak occurred. The months of May and June were very dry in the Manitoulin district and there was a hatch of grasshoppers, which, had they been allowed to develop unmolested, would have destroyed the entire crop of the district. Fortunately, the farmers were prepared by having the white arsenic poison on hand, and a very serious crop loss was averted. In spite of these precautionary measures, there was a certain amount of loss owing to the difficulty in getting farmers to treat waste land areas or work systematically together in distributing the poison bait.

A more or less serious outbreak of grasshoppers also occurred on the main land along the main line of the C.P.R. west of Sudbury. The prompt action of the Agricultural Representative in assisting the farmers and in securing poison for this work from the Manitoulin Island supply checked the ravages of this outbreak and saved the crops of many of the farmers in the infected area.

Breeders' Clubs.

The breeders of pure-bred live stock are realizing more and more each year the value of breed organizations for the purpose of promoting the use of better live stock, co-operation and good fellowship amongst the breeders. Many of the live stock breeders' clubs which are quite general throughout the Province are doing valuable live stock improvement work, by conducting sales of pure-bred stock and in generally promoting their respective breeds.

During 1923 the following breeders' clubs were organized:—

County	Name of Association.
Lennox and Addington	Napanee Holstein Breeders' Club.
Manitoulin Island	Manitoulin Breeders' Club.
Middlesex	Jersey Cattle Breeders' Club.
Peel	Peel District Jersey Breeders' Club.
Renfrew	Renfrew Breeders' Association.
Fort William	Gillies Ayrshire Breeders' Association.

Advisory Agricultural Councils.

Advisory Agricultural Councils have been appointed in nineteen counties throughout the Province and in most cases have rendered very valuable assistance to the Agricultural Representatives. These councils in each county met two or three times each year for the purpose of discussing the work in progress, planning new work to be undertaken and advising the Agricultural Representative regarding the general conduct of the work of his office. The representative makes use of the various members of the Advisory Council by using them as key men in connection with any work which may be undertaken in the section of the county where they reside. Advisory Agricultural Councils were appointed during 1923 in Kent, Lennox and Addington, and Prescott and Russell counties.

Farm Drainage.

The high cost of tile and the scarcity of labour has prevented farmers from putting down tile drains extensively during the past few years. The great majority of farmers, however, realize the importance and value of underdrainage with the result that the Agricultural Representatives have frequent calls to make more or less extensive drainage surveys of farm land areas requiring tile drainage before they can be satisfactorily cropped.

Boards of Agriculture.

County Boards of Agriculture are active in a number of counties and conduct a series of agricultural meetings during the winter months, also occasional short courses of one or two days' duration in stock judging. In counties where these special meetings and courses are held, Agricultural Representatives co-operate with the Boards of Agriculture in carrying out their programmes. These boards, in one or two instances, also function as an Advisory Agricultural Council, the Representative planning and discussing the work with them and using the members of the board as key men for carrying on work in their neighbourhood. In Welland county, the Board of Agriculture has been very active and in connection with its other work unites with the Farm Bureau of New York State in staging a monster picnic at Crystal Beach in Welland county each year.

Fall Fairs.

During the past year Representatives have assisted Agricultural Societies in revising their prize lists, arranging for special features at the fall fairs, in conducting the junior departments of the fairs and in judging certain classes. Junior farmers' live stock judging competitions have been conducted at a considerable number of the fall fairs, and this work is usually in charge of the Agricultural Representative. Many fall fair associations have during recent

years greatly extended their activities in connection with their junior departments and in all cases the results of this work have been gratifying and considerable of the interest shown is probably due to the training and start secured by the boys and girls in school fairs, which are logical feeders to the Agricultural societies.

MISCELLANEOUS.

Agricultural Improvement Associations.

Agricultural Improvement Associations are numerous, quite generally distributed throughout the Province and embrace practically all branches of Agriculture, including such organizations as Fruit Growers' Associations, Vegetable Growers' Associations, Horticultural Societies, Poultry Associations, Beekeeping Associations, Plowmen's Associations, Seed Grain Centres, Potato Growers' Associations, and Publicity Associations. The various Improvement Associations and the Agricultural Representatives are able to co-operate very closely in their work to the material advantage of both.

Co-operative Organizations.

Co-operative enterprise throughout the Province has received considerable attention from the Agricultural Representatives during the past year, but the organizations in Oxford and Peel counties have shown the greatest development. In Oxford county a strong co-operative organization has been formed for the marketing of eggs on a graded basis, and for the short period that this organization has been operating excellent results have been obtained. An exhibit of eggs from this organization at the British Empire Dairy Show in England last autumn won first place. In Peel county the alfalfa growers have been organized for the purpose of marketing the alfalfa seed produced in the county. This organization is putting the alfalfa seed produced by its members on the market under very careful supervision, not only by its own officers but also by officials of the seed branch of the Dominion Department of Agriculture.

Many other co-operative activities have been assisted, with egg circle work receiving the greatest amount of attention, and in this work the poultry promoters of the Dominion Department of Agriculture have given much valuable assistance.

European Corn Borer.

In connection with the European Corn Borer work in southwestern Ontario, the Representatives have co-operated in every way possible with the Provincial and Federal Departments of Entomology in studying the habits of this pest and methods of control. In co-operation with the Provincial Entomologist of the Ontario Agricultural College, the Representatives in Norfolk, Elgin, and Middlesex counties distributed a circular on European Corn Borer control and preventive measures to practically all farmers in these three counties.

Wool Marketing.

The co-operative marketing of wool in Ontario has received considerable attention by the Agricultural Representatives during the past year. They have, at meetings and by personal interviews, encouraged farmers to properly care for their wool clip and market on a co-operative basis according to grade

wherever possible. This assistance in the handling of the Ontario wool clip, following up the sheep improvement work in dipping and docking, has been an important factor in improving the quality and condition in which our wool is placed upon the market. The returns to farmers last year for wool marketed co-operatively were very satisfactory and the volume will undoubtedly increase in the future.

Special Activities.

In addition to the regular work planned and carried on by the Agricultural Representatives, many special lines of work are introduced from various sources which receive their assistance and support. For example, the Representatives in Carleton and Prescott and Russell were requested to look after the field work in connection with an orchard and garden competition in their counties; Representatives around Toronto have been requested by the dairy companies to make butter fat test for farmers before accepting their milk; the Representative in Kenora district has been called upon to do considerable veterinary work owing to the absence of a veterinarian in the district. Special meetings on such questions as rural credits, reforestation, co-operation, fruit and vegetable conferences, etc., have also been assisted.

Home Demonstration Work.

During the past year the Home Demonstrator in Peel county conducted special courses with the Junior Women's Institutes as follows:—

Place	Auspices	Date	Course	No. Registered	Average Attendance
Alton	J.W.I.	Oct. 23–Nov. 3rd.	Sewing	14	12
Brampton	J.W.I.	No. 7–18.	Sewing	14	13
Cheltenham	J.W.I.	Feb. 19–Mar. 2nd	Home Nursing	30	21
Brampton	C.G.I.T.	Mar. 9–Apr. 6.	Foods	16	15

"Cheltenham Juniors completed one course in Home Nursing on October 20th, 1922. During the one held this year they gave a demonstration on first aid at an open meeting. At the conclusion of this course, they organized the first Junior Institute Volunteer Nursing Brigade. Sixteen girls registered. Uniforms were made at regular meetings. These girls are available to the community for free service during illness and have already taken care of a number of patients.

"The last course listed was given to a group of teen-age girls in a *Canadian Girls In Training* class."

University Extension: Two communities were organized for University Extension as outlined in previous reports:

Place	Date	Subject	Registration	Average Attendance	Classes
Brampton	No. 1, 1922	English	37	19	18
	Mar. 8, 1923	Literature	37	19	18
Cooksville	Nov. 9, 1922	History	59	32	19
	Mar. 23, 1923				

"The Brampton class studied Hamlet and Macbeth and read one modern historical novel.
"Cooksville class took up the "History of the British Empire."
Each had a lecture, illustrated, on New Europe and one social evening."

Junior Women's Institutes: Peel Junior Institute met with Peel Junior Farmers for a field day in June. One hundred and fifty members spent a Saturday in May at the Ontario Agricultural College as guests of Macdonald Institute.

The judging competition report follows the outline of junior group activities:

Alton—Study of vocations for girls—opened by the president of County Juniors; quilts and clothing for Soldiers' Settlement Board; Northern Relief; baskets to village poor at Christmas; sewing class; several social evenings for the village; gave programmes for two Women's Institute meetings—one a debate.

Brampton—University Extension Course in English Literature; sewing for Soldiers' Settlement Board; supplied material for three months' short course demonstration for Child Study and Mothercraft lessons; baked food sale; garden party; field day; joint meetings with J.F.I.A., specializing on games; booth at Brampton School fair; team judged cooking and sewing classes at Caledon, Bolton, and Inglewood.

Bolton—Social meetings with J.W.I.A.; prize for button competition at School fair; booth at School fair; membership campaign; team judged at Ebenezer School fair.

Cheltenham—Home nursing course and organization of Brigade (see special short courses); demonstrations on foods; first aid; play; assisted W. I. with cemetery fund.

Codix—Group drawn from Cooksville and Dixie organized in May; 34 members; garden party; community evening; study club; organizing a course in home nursing and first aid; corn roast; masquerade.

Ebenezer—Only a few members left; meets occasionally with J.F.I.A.

Streetsville—Assisted with three months' short course; put on a play with the J.F.I.A.; folk games; large exhibit in their section at Fall fair; clothing and reading for Soldiers' Settlement Board; bazaar; field day.

Judging Competition: On the 26th of October, the day of the Peel Junior Farmers' stock judging competition, Peel Junior Institute conducted its first annual judging competition in a central hall in Brampton. Forty-eight girls worked on five classes of foods, four of sewing, and one of good dressing. Peel County Junior Institute supplied tea biscuits and butter; Malton W. I. sent in bread; Snelgrove W. I., cakes; Streetsville W. I., the school lunches, and Brampton Girls' Club sent in four members to demonstrate good dressing. Other classes were filled in by interested friends. Each class had four exhibits.

The championship prizes were first, sixty dollars, and second, forty dollars, to be used in defraying expenses of trips to Chicago International Fat Stock show and Junior Club Convention, 1923.

Girls' Club: The Brampton Girls' Club continued its activities during 1923 and for the physical culture classes which opened in October they had an enrolment of fifty girls in the children's section and thirty-five in the adult section. The girl's club took charge of a booth during the Brampton Old Home Week, and funds are being raised to purchase a car for the Victorian Order Nurse.

School Nurse Project: The school nurse project was financed by grants from the county council, the Department of Education, and school boards concerned, and the work was caried on as in former years, except that one nurse only was employed during the past year.

The report of the Home Nurse for the past year is as follows:—

Inspections	13,731
New Defects Found	739
Defects terminated	446
Home visits	340
Consultations	29
Exclusions for communicable diseases	10

School Fairs: The Home Demonstrator assisted with the school fairs by attending a number of the organization meetings, preparing the Home Economics Section of the prize list and securing special prizes from the various branches of the Women's Institutes.

Poultry Flock Competition: A poultry flock competition open to the young woman in Peel county has been arranged for the year, October 15th, 1923, to October 15th, 1924. The prize will be awarded on the basis of:

"Fifty points for profit per hen per year including sale of eggs and market poultry, eggs used in the house, eggs used or sold for hatching or poultry sold for breeding purposes to be calculated at market price.

Twenty points for egg production per hen per year.

Thirty points for records and general management, the former to include an inventory at time of entry, additions to flock or equipment and the latter to include quality or production, sanitation of buildings, health of flock (in case of birds dying or disappearing, give date and suspected causes)."

Competitors are required to enter a flock of not less than forty females and must personally feed and generally attend the birds.

The Home Demonstrator performs a useful service to the girls and women and homes of the county, which is being appreciated more and more each year.

The following statistical information shows the extent of her correspondence, meetings attended and personal points of contact:

Office Calls	676	Attendance	4,515
Phone Calls	848	Special Short Courses	5
Letters sent	665	Schools visited	17
Letters received	726	Rural homes visited	127
Circular letters sent	1,178	Newspaper articles	5
Bulletins given out	898	New organizations formed	2
Meetings addressed	118	Half-days in office	226

COLONIZATION AND IMMIGRATION BRANCH.

The following table gives figures which will indicate the outline of the work accomplished for the fiscal year ending October 31st, 1923—for the Colonization and Immigration Branch:

Number of Farm Labourers placed (including 153 women; 187 children).	2,803
Number of domestics who passed through the Canadian Women's Hostel, 72 Carlton Street, Toronto	938
Number of farm labourers placed by the Salvation Army	292
Number of domestics placed by the Salvation Army	958
Number of boys placed by the Salvation Army	108
Number of railway certificates to settlers proceeding to Northern Ontario (consisting of 624 adults and 60 children)	553

The Ontario Government parties consisted of immigrants organized by the Ontario Government Office in London, England, who came forward in charge of a conductor, and were met at the port of landing by an official from our Distributing Office, 172 Front Street West, and were directed by him to their place of employment. These parties consisted of from 50 to 300 and sailed at intervals during March, April, May, and June. Farm workers and domestics were, however, received on every boat during the entire season. The men selected were, on the whole, a very good type, and it is worthy of special notice that the men secured from Norfolk County (England) were exceptionally good. A number of foreigners—principally Danes, Swedes and Hollanders, were also placed with very satisfactory results. Farmers who employed these men, and the agricultural representatives who co-operated with us in getting them placed, assert that they gave excellent satisfaction.

LONDON OFFICE

The work of the London Office continues to grow in volume and importance. In addition to directing the work for the selection of suitable farm settlers and domestic servants, the office of the Agent-General, at 163 Strand, receives thousands of callers and many more written communications asking information on all manner of subjects affecting this Province. As a result, the Province receives a great deal of very useful publicity which is the means of attracting investors and tourists, as well as settlers and labourers.

During the year the British Parliament passed a bill setting aside the sum of £3,000,000 per annum for a period of 15 years to assist in the settlement of people from the British Isles in the Overseas Dominions. To administer this legislation, an Overseas Settlement Board was appointed and they announced their readiness to co-operate with all overseas agencies on a fifty-fifty basis. Negotiations have been carried on with a view to making some agreement on behalf of this province and these negotiations are still in progress. The relationship of the Federal Immigration Service as well as the non-government organizations naturally has a bearing on the subject.

CO-OPERATION AND MARKETS BRANCH.

Co-operative marketing of farm products is making steady progress in the Province. The growth is not spectacular, but among producers generally, there is gradually developing a better understanding of this system of marketing, with the result that organization of co-operatives is being effected on a more sound basis than formerly. Much remains to be done in this direction. Generally speaking, the principle of co-operative marketing is accepted, but specially among those who have had experience with non-successful concerns, there is naturally a reluctance to the adoption of the principle in practice, but an understanding of the proper basis of organization, the adoption of better business practice, the marketing of a high quality product, and other factors are adding to the permanence and stability of our co-operative marketing organizations.

The importance of the marketing problem to Ontario is made apparent from the fact that with some of our leading export products, our outstanding position is being seriously menaced by other countries which have organized their marketing. An instance is the present relative importance on the English market of Canadian and New Zealand cheese, in comparison to what it was a few years ago. At the present time, New Zealand cheese is assuming a prominent place on the English market. If Ontario is to maintain its place in the markets of the world and even in its home markets, progress in organized marketing must be made equal to that of our competitors. The importance of co-operative marketing cannot be overestimated.

Incorporated Organizations.

There are in Ontario some 247 incorporated organizations, incorporated under Part 11A of The Ontario Companies Act which was enacted in 1917, and which applies to the incorporation of co-operative companies.

The various organizations may be somewhat classified as follows:—General, 140 (organizations which market one or more commodities or handle supplies); Dairy Products, 44; Grain 12; Produce, 8; Fruit, 15; Live Stock, 1; Honey, 1; Stores, 26.

In addition to the above are a number of farmer-owned concerns which were incorporated previous to the enactment of Part 11A of The Ontario Companies Act, but which are to all intents and purposes co-operative in the nature of their business.

Non-Incorporated Organizations.

In addition to the incorporated companies already noted, there is considerable trading, both in buying and selling, by non-incorporated farmers' clubs and similar organizations. The most important of these are live stock shipping clubs and clubs for buying farm supplies. A large proportion of live stock coming to central markets is shipped co-operatively. In addition there are about forty organizations holding auction sales of pure-bred stock of the various breeds.

Honey.

Of the incorporations during the year, the "Ontario Honey Producers Co-operative, Limited," is the only one which is province wide in its scope. Honey is not produced in special districts but by individuals scattered over

the Province. The basis of organization, therefore, was not that of the formation of locals federated and controlling a central marketing company as would be the case with some other commodities. Rather a single large company has been formed, with individual producers as shareholders, each shareholder being required to subscribe for stock in the company in the proportion to the number of colonies owned or controlled by him.

During this first year of its business the company has 515 producers as shareholders and approximately 6,500,000 pounds of honey under its control. A brand name "Beekist" has been adopted, and a special design for containers is in preparation. Organization was affected too late to have these special containers ready for the 1923 crop, but the 1924 crop of "Beekist" honey will appear in its own distinctive package. Grades have been adopted and shareholders are being paid for honey on the basis of grades delivered. Some advertising has been done and important steps taken towards building up an export market. The Canadian West has been the important market for Ontario honey in the past, but the western provinces have now largely increased their own production, thus curtailing our market in that direction. The organization of this company came at a time when it was most urgently needed to build up new markets and save the industry from very serious depression of prices. This is the first province-wide co-operative company to put into effect a three year contract with its shareholders. No share has been allotted unless the applicant has signed this contract. It is apparently because of the contract that the company has so quickly attained its strong position in the market. With three-fourths of the commercial crop under its control, this co-operative promises to be one of the most effective commodity organizations for orderly marketing in the Province.

Wool.

From 1917 to 1922, the Ontario Sheep Breeders' Association collected and graded Ontario wool, the sale of the wool being made by the Canadian Co-operative Wool Growers, Ltd., a Dominion-wide organization. In 1923, both the collection, grading and sale of this product in Ontario was handled by the latter organization alone. Some 600,000 to 800,000 pounds of Ontario wool is marketed co-operatively annually.

Seed Cleaning Plants.

There are some eighteen farmer-owned seed-cleaning plants in the Province, only one of which, however, has obtained a loan under the Marketing Loan Act. This is no doubt due to the fact that seed-cleaning machinery can be installed at comparatively modest prices. During the year, the Alfalfa Seed producers of Peel county have installed a seed-cleaning plant at Brampton, and marketing of their seed is being put on a sound basis. Alfalfa seed to the amount of 20,000 bushels of cleaned seed will likely be sold in Peel county from the 1923 crop.

The Marketing Loan Act also provides for loans in assisting to erect potato warehouses. The Simcoe Potato Growers' Co-operative Association obtained a loan of $3,000, and erected a suitable building at their shipping station. The

building is equipped with a power potato grading machine and the work of the company has been of material assistance to the growers. Last year all members of the association sold their crops at good prices, while many non-members in the same district were left with a large proportion of their crop unsold or disposed of it at low prices.

Eggs.

As indicated in a previous report, small local egg marketing circles have been operating since 1911. These local circles are now showing a tendency to federate. In Oxford county some fifteen circles have co-operated this year in employing a single salesman and in establishing a central grading station as an experiment and if successful, a county-wide marketing company for eggs will be organized. Co-operative egg marketing is now receiving serious attention also in many other parts of the Province. Locals of the Niagara Peninsula Growers, Ltd., are preparing to market eggs, especially winter eggs, through this company, an arrangement which the producers hope will be beneficial both to the company in keeping it profitably employed during the non-fruit season and to the egg producers of the Niagara District.

The following egg circles are at present operating in the Province:

Alexandria
Alfred
Asphodel
Athens
Baldersen
Cambray
Cordova
English Line
East Lake
Hammond
Harper
Havelock
Hopetown
Indian River
Lanark
Lansdowne
Lyndhurst
Madoc
Middleville
Norwood
Parham
Pendleton
Perth
Plantagenet
Rose Corners
Smith's Falls
South Lake
Springbrook
St. Isidore
Welcome
Warsaw
Wellington
Wendover
Westwood
Bright
Brookdale
Burgoyne
Corinth
Dobbinton
Eden
Port Elgin
Embro
Harrington
Hepworth
Hickson
Norwich
Park Head
Tara
Tavistock
Tiverton
Underwood
Woodstock

General.

It will be seen from the list of co-operatives, that there are numerous local organizations scattered over the Province engaged in marketing a large number of different commodities. These small organizations are carrying on business largely independently of one another. Where we are called upon to assist we endeavour to encourage organization on such a basis as will facilitate federation with the least difficulty, if and when such federation is desirable. A standard set of by-laws is issued and as far as possible these by-laws vary only to suit the particular project under organization.

It is to be regretted, perhaps, that complete statistics as to co-operative trading in the Province are not available, as it is apparent that the volume is much larger than is commonly supposed. Some of these organizations have been in existence for a large number of years and are commercially important. The total business of co-operatives in the Province would amount to many millions of dollars.

Community Halls.

Under the Community Halls Act, the following community halls have been completed during the year and grants paid thereon:

Name	Place	Total Value	Grant
Percy Township Community Hall	Warkworth, Ont.	$8,408 24	$2,000 00
Tamworth Consolidated School	Tamworth, Ont.	11,599 59	2,000 00
Humber Heights Consolidated School	Weston, Ont.	21,216 00	2,000 00
Savard Consolidated School	Charlton, Ont.	9,500 00	2,000 00
Oxdrift Community Hall	Oxdrift, Ont.	4,154 46	1,038 62
Cavan Community Hall	Cavan, Ont.	7,205 31	1,801 33
Waterdown Community Hall	Waterdown, Ont.	21,000 00	2,000 00
Stoney Creek Community Park	Stoney Creek, Ont.	4,800 00	1,200 00
Dutton Community Hall	Dutton, Ont.	25,870 46	2,000 00
Craithie Community Hall	Strathroy, Ont.	3,983 96	995 99
Grantham Township Consolidated School	Vicinity of St.Catharines,Ont.	9,000 00	2,000 00
Sharbot Lake Community Hall	Sharbot Lake, Ont.	8,340 36	2,000 00
Wellington Consolidated School	Wellington, Ont.	13,686 00	2,000 00
North Mountain Consolidated School	North Mountain, Ont.	10,450 00	2,000 00
Burriss Township Community Hall	Burriss, Ontario	4,986 00	1,246 00
Oakwood Community Hall	Oakwood, Ont.	12,700 00	2,000 00
		$176,900 38	$28,281 94

At the following points, grants have been applied for and halls and athletic fields are under course of construction:

Brooklin Community Athletic Field, Brooklin.
Ignace Community Hall, Ignace.
Caledon East Community Hall, Caledon East.
Falls View Consolidated School.
Hawkestone Community Hall.
Nipigon Consolidated School.
Reaboro Township Community Hall, Reaboro.
Roxboro Township. Community Hall, Moose Creek.
Bond Head Community Athletic Field.
Blake Township Community Hall, Moose Hill.
Ravenna Community Hall.
Crediton Community Hall.
Moorefield Community Hall.
McIntyre Community Hall.
Quibell Community Hall.
Rosseau Community Hall.
Wallacetown Community Hall.
Woodville Community Hall.

In addition to the above, community halls are now established at:

Binbrook.
Cobden.
Lakefield.
Blyth.
Raymond.
Humberstone.
South Norwich.
Dunchurch.
Londesboro.
Moonstone.
Kimberley.
Slate River.
Eady.
Vandorf.
Currie's Crossing.
Bancroft.
Caradoc Township, Mt. Brydges.
Mindemoya.
Carlisle.
Dorion.
Tottenham.
Glanford Township, Mt. Hope.

During the summer we made some inquiries regarding the conduct of these halls over the Province. The replies indicate that the halls have been of great social and educational value to the districts wherever established. The following observations are gathered from the replies received:

Most of the rules and regulations governing the halls as adopted by the various community hall boards provide for the proper use and care of the hall; for closing the hall not later than 1 a.m., dances by invitation, no public dances; sometimes limiting the number of dances per month, and similar provisions.

A number have no rules or regulations whatever, but all applications for use of the hall come before the board for action, so that the board is able to deal with each situation as it arises.

The fees charged for the use of the halls vary from nothing to ten dollars. Most boards charge a nominal fee for local entertainments varying from fifty cents to five dollars depending on the nature of the gathering. One hall has among its regulations: "That in consideration of the noble work of the Women's Institute, they have the use of the hall free for meetings." Generally the aim is to charge only enough to cover caretaking expenses, and where a fee would discourage any good work in the slightest, nothing is charged for the use of the hall. In a few cases the hall is given free for all occasions, the board meeting expenses by holding entertainments of one sort or another. Most of the halls issue a financial statement which is issued through the local press, or at a meeting called for the purpose. It is important that properly audited accounts be laid before the community each year.

Halls over the Province are used for a multiplicity of purposes, and it is interesting to note the variety: Oyster suppers, garden parties, church entertainments, moving pictures, political meetings, choral societies, sewing circles, school fairs, amateur plays, dances, sports' day, concerts, short courses in agriculture, and domestic science, Sunday school, nominations and elections, banquets, meetings of all sorts of local organizations, such as Women's Institutes, farmers' clubs, co-operative organizations, township council, agricultural and horticultural societies, athletic associations, local telephone companies and the like. Three day "Country Life Institutes" have been held in a few halls. The athletic grounds in connection with these halls are also well used. At a number of points the grounds are of more importance than the hall; for instance, one secretary reports as follows:

"We have had a very successful year. We have erected two buildings in the park and have fitted up swings and playgrounds for the small ones and have built a bathing house and furnished a swimming floor in the pond, protected by an iron rail around the sides, with a slide and spring-board and float; steps from the bathing house to the pool and seats for the spectators. This summer we are planning a large building, eight-sided, two stories high, 40 feet across, floored and screened, to be erected on the park to be of use in case of rain or to be used for booths or exhibits of children's work or any use it would be suitable for. This will not be heated but will be wired for light. We find the people are making use of the field and hall more as they begin to feel that it belongs to them, and tourists going through often stop and have a rest and picnic and others come from outside the township and have a day of sport."

Another community park on Lake Erie has an especially fine bathing beach with a refreshment stand, two bathing houses, etc. The report says:

"The park is being well patronized by mostly all our organizations and churches in holding picnics, etc., and has given general satisfaction to the ratepayers of the township, as well as from other municipalities adjoining, who have had the pleasure of using the park free of charge."

At most points the Community Hall Board does not plan any programme of activities for the use of the hall, but it is left to other organizations in the community. At some places, possibly an improvement could be effected if the board took a more active part either in planning community social activities or encouraging the formation of organizations for using the hall.

In a few districts the question of dancing in the community hall has been a problem. Where there are a few local organizations and the board is not active in planning for the use of the hall, the tendency is toward dancing as the only form of social gatherings. At other places, the board has had no requests for the use of the hall for that purpose. Between these extremes

most boards adopt a middle course, allowing a few dances, closing these at a reasonable hour, and more particularly planning wholesome entertainments and indoor athletics during the winter months. For these purposes, windows and lights are protected so that indoor baseball, volley ball, and similar games can be played. This protection is easily arranged by having heavy wire netting on frames placed over the windows and lights and which can be removed when not needed. Some of the community halls have been well planned for indoor games, while with others this feature of the building has been more or less lost sight of. Where the board or other organization is active in planning an all round social life for the community, the problem of too much dancing apparently becomes unimportant.

An attractive well lighted and useful hall in a community has proven a real asset, and in every instance is the social centre of which the people are justly proud.

KEMPTVILLE AGRICULTURAL SCHOOL.

In spite of reduced profits on eastern Ontario farms, the interest in the Kemptville Agricultural School by the farmers of eastern Ontario has been very gratifying. As was expected, the attendance of students in the regular classes was somewhat smaller in 1923-24 than during the previous year, but many farmers have expressed their intention of sending their sons and daughters to this school as soon as returns from their farming operations will permit. Interest in winter Short Courses was evidenced by satisfactory attendance at all these courses, except the Poultry Course—a branch of farming operations which should be given greater attention than in the past.

The attendance in the different classes last year was as follows in the regular classes:

Agriculture:	Junior Year	13 students
	Senior Year	14 students
Domestic Science		25 students
Short Courses:	Motor Mechanics	35 students
	Poultry	25 students
	Domestic Science	38 students

Live Stock Progress.

Satisfactory progress has been made during the past year with the flocks and herds. Owing to lack of accommodation, several head of Holsteins were disposed of at the Annual Sale held at the School. A choice, proven Ayrshire bull, "Willowmoor Peter Van 93rd," was purchased during the past year, as were two young Holstein cows. During the show season of 1923, the senior Holstein sire, "Count Rauwerd Rattler," was sold to a Prince Edward Island breeder for $600, while several young Holstein and Ayrshire bulls were sold to farmers. These included two sons of "Lady Hopeful," the Ayrshire cow which won last year the silver cup for highest production in the Mature Class in R. O. P., she having made a record of 16,612 pounds of milk, testing 4.76 per cent., and yielding 764 pounds fat. A promising young Holstein bull was sold to a Quebec breeder. His dam, "Goldie Keyes Camille," had last year a R. O. P. record of 26,361 pounds milk, and 1,000 pounds butter.

As in previous years, stock was exhibited at the Ottawa shows, only entering animals bred at the School, excepting herd sires. At the Central Canada Exhibition, in addition to a number of minor prizes, we won Grand Champion Holstein bull with the senior herd sire, "Count Rauwerd Rattler," and also first in "Get of Sire" class, defeating the group that had won the week previously at Toronto, and also at every show in Western Canada. Our newly-imported Shropshire ram was Reserve Champion at Ottawa. An Ayrshire calf, son of Lady Hopeful, was best calf exhibited at the Ottawa Winter Fair. Three Holsteins from the School herd were included in the Ontario herd shown at the National Dairy Show at Syracuse in October. Our senior herd sire headed the State herd that won over all the American herds.

During the past year the herd was placed under the Federal System of Accreditation, and went through the first double test without a reactor.

Feeding Costs.

To secure information *re* the cost of milk, an accurate record of the feed given to all cattle in the herd was kept last year. The following table shows the feed cost, and the production of eight of the Holstein herd, those selected

including the lowest, the medium, and the highest producers for the year. The record of feed costs is for the time each was milking, and does not take into account feed fed when cows were dry, and is, therefore, not a record of the total cost of milk—only of feed fed when cows were milking. Cows were fed according to ability to produce, the meal ration generally being at the rate of one pound to three and one-half pounds of milk:

Name of Cow	Meal	Roots	Silage	Hay	Pasture	Total Cost
Molly Pontiac Pride	$34 12	$6 75	$28 50	$10 80	$8 00	$88 17
Toitilla Rue	37 04	7 26	28 21	10 95	8 00	91 46
Pontiac May Echo Walker	39 60	7 50	29 25	10 80	8 00	95 15
Marcena Rue Lass	87 27	9 57	28 40	11 18	8 00	144 42
Margaret Pontiac Pride	50 02	8 02	30 37	11 10	8 00	117 51
Daisy Mercena Pontiac	94 23	9 00	29 25	11 18	6 00	149 66
Monkland Jenny Lind	144 84	9 92	18 35	13 00	8 00	194 11
Goldie Keyes Camille	147 88	15 00	27 11	14 30	8 00	212 29

Name of Cow	Average Yield
Molly Pontiac Pride	7,365.0
Toitilla Rue	11,819.8
Pontiac May Echo Walker	11,903.9
Mercena Rue Lass	15,463.7
Margaret Pontaic Pride	16,554.0
Daisy Mercena Pontiac	19,882.1
Monkland Jenny Lind	24,876.6
Goldie Keyes Camille	26,361.0

These tables show that Cow No. 1—the poorest producer and the cheapest cow fed—produced milk at the greatest cost; they also show that high-producing cows fed heavily, produced milk as cheaply as less productive cows whose feed costs were less than half that of the heavy milkers. The high cost of the milk of Cow No. 4 was due to the fact that she was an exceptionally high tester, and as a result was fed a heavier and richer meal ration than her milk production would appear to warrant.

Results with the Ayrshire herd were similar to those from the Holstein herd. The feeds were given the following values:

Meal	$50 00 per ton
Silage (sweet clover and corn)	5 00 per ton
Roots	5 00 per ton
Hay (alfalfa)	15 00 per ton
Pasture	2 00 per month.

Poultry Work.

During the past year, a new breeding house and three colony houses were added to the poultry plant. This plant now consists of two laying houses, two breeding houses, and four colony houses. Each laying house is capable of accommodating one hundred to one hundred and twenty birds. One breeding house consists of six mating pens; the other of eight pens. Three of the colony houses are ten by twelve feet, and in these coal stove brooders are used for brooding chicks. The remaining colony house is of smaller dimensions, and in it a portable kerosene brooder is used.

Two of the larger colony houses were constructed by the regular students under the direction of the instructor in Farm Mechanics.

Small runs have been arranged and fenced to the south of the laying houses. Larger runs are now being provided north of the houses. The birds will be alternated in these, to allow for at least annual liming, cultivation and cropping of the ranging ground.

About three hundred and twenty-five laying hens are maintained at the School plant. Approximately two-thirds of these are Barred Plymouth Rocks; the remainder are White Leghorns. During the coming summer, it is hoped to increase the laying flock to four hundred birds. So far, it is the policy of the institution to purchase a few birds of the other more popular varieties for use in breed studies and demonstrations with the students.

Trap nests are installed in all the houses. Actual trap nesting was not commenced until December 1st, 1922. For this reason no full year's record of the birds has yet been obtained. However, about twenty birds passed the 200-egg mark in eleven months. Several others approached this mark very closely. Artificial lights have recently been installed, and this winter pullet production has been much increased. Feed costs are now being kept on a pen of fifty-five Leghorn pullets.

Fattening crates have been constructed for the accommodation of eighty birds. Each regular student takes charge of a pen of four birds. The summary of a student's experiment follows:

Number of birds fattened	64
Weight of birds when crated	298 pounds
Average weight of birds when crated	4 pounds, 10 ounces
Weight of birds when fattened	393 pounds
Average weight of birds when fattened	6 pounds, 2 ounces
Average gain in weight per bird	1 pound, 8 ounces
Weight of dressed birds	354 pounds
Average weight of dressed bird	5 pounds, 8 ounces
Loss in weight for bleeding and plucking	10 per cent.
Value of birds when crated	$50 66
Value of milk and meal used	11 80
Cost price of birds and feed	62 46
Selling price of dressed birds	106 20
Profit over cost of feed	43 74
Profit over cost of feed per bird	68

The School has eight small-sized incubators of various makes. In future, each regular student will have charge of one incubator during a hatch. With rare exceptions, all chicks to be kept by the institution are pedigreed.

Last autumn, through co-operation with the Ontario Agricultural College, sixty-five Barred Rock male birds, of our best breeding, were supplied to Breeding Stations in eastern Ontario. Several other male birds were supplied to individual breeders at nominal prices. As many eggs as can be spared for hatching purposes are sent out to applicants. For hatching eggs, likewise for male birds, the demand has greatly exceeded the supply. This has been particularly true of the Barred Rock variety, while the requests for Leghorn stock are also on the increase.

November 1st, 1923, two pens of pullets, one of Barred Rocks and one of Leghorns, were entered in the Canadian Contest at Ottawa. Up to the present, these birds have been doing excellent work. At the Ottawa Winter Fair, eight entries of eggs were exhibited; seven prizes were obtained.

Besides the Regular Course, a Short Course of one week's duration is conducted in Poultry Husbandry. The attendance at this Course for 1923 was twenty-five. Itinerant students brought the number up to fifty. Assistance has also been given some of the Agriculatural Representatives in eastern Ontario with Short Courses and culling demonstrations. This applies chiefly to Dundas, Carleton, and Grenville Counties.

Bees, Fruit and Flowers.

A beginning has been made in the establishment of an apiary. Eighteen colonies are now had. The bees are kept in ten-frame full depth Langstroth hives. For the most part, extracted honey is produced; a small amount of comb honey in sections is also harvested. The colonies are wintered in quadruple cases. The past winter all the colonies came through successfully.

A general course in the practical phases of bee-keeping is given to the regular students during the fall term of their Junior Year. Besides, the colonies maintained an extractor and all other necessary articles for successful management are kept for school use and for demonstrations in lectures.

During the past year the work in the Horticultural Department at the School has consisted to a large extent in developing the work initiated the year before. The lawns that were seeded, and the trees and shrubbery planted were grown satisfactorily, and the School can now claim to have grounds where picnics, sports, and visiting parties can be suitably entertained.

A considerable amount of grading and further seeding and planting was done, but, owing to the situation of the Main Building, a large amount of filling and grading has yet to be done. This work, together with drawing gravel for building the roads, will be undertaken at such times as the farm labour and teams can be secured.

The apple orchard, now six years old, is in satisfactory condition. Some fruit of good quality was obtained and used in the School dining-room. The Wealthy and Duchess varieties are the only two yielding any quantity of fruit. Considerable injury has been experienced in a number of young orchards in eastern Ontario, during the past winter, through girdling by mice. This serious injury was practically entirely avoided by the use of building paper which was wrapped around the base of the young trees to a height of about eighteen inches. The only injury sustained was with some half-dozen trees where the paper had become torn. The protection afforded was the more remarkable, as bark on prunings that had been lying under the snow was considerably eaten.

The vegetable garden produced a quantity of vegetables for the Summer School and roots for winter use in the School dinging-room, as well as providing strawberries and some raspberries for preserving. Some seven hundred tins of tomatoes were canned by the use of a small canning plant that was installed at the close of the season.

During the coming season it is planned to materially increase both the quantity and the variety of material that may in this way be preserved for the requirements of the School during the winter months.

A number of lectures have been given at outlying points during the past year on subjects dealing principally with "Farm Home Beautification"; "The Home Vegetable Garden"; "Hardy Fruits Suitable for Eastern Ontario."

Plans and suggestions for home planning have been made for a number of farmers who have requested assistance along these lines, and a number of farms have also been visited in connection with this work. Assistance has also been given in orchard pruning demonstrations.

Judging of horticultural products at a number of Horticultural Fall and School fairs was undertaken, and upon several occasions an opportunity was afforded to bring to the attention of exhibitors the type and quality desired in varieties of fruits, vegetables and flowers.

Field Husbandry and Chemistry.

The season of 1923 was characterized by an extended drouth during the early part of the summer which materially reduced the hay crop and the corn particularly. It served, however, to show the marked superiority of alfalfa as a hay crop, and sweet clover as a pasture crop, over the usual mixtures of red clover and timothy during unfavourable weather such as was experienced. On the School farm it is being proven annually that alfalfa can be successfully grown in this district, if good Ontario grown seed is used and reasonably good cultural methods employed. As a result, many farmers in the immediate district and in widely separated districts are trying out alfalfa for the first time this year, and others who have had failures in the past are gain attempting to grow it, using the methods found to be successful here.

Sweet clover has again demonstrated its suitability as a silage crop. Comparative costs of production show that it was produced here this year at $2.14 per ton. The records of cost in producing various farm crops at the School indicate that barley is usually a more profitable cereal crop to grow than either oats or wheat, barley being produced at a cost of .94 of a cent per pound and oats 2.2. One of the difficulties experienced at the Kemptville Agricultural School has been extensive injury to the oat crop by rust. Hoping to avoid this damage by using an earlier maturing oat, the Registered Banner, which we have been growing, will be replaced by Registered Alaska for the 1924 crop. This oat is characterized by a low per cent. of hull, good yield and early maturity.

Fertilizer tests were carried out on the Kemptville Agricultural School farm with mangels and corn, a summary of which is as follows:

SUMMARY OF FERTILIZER TESTS ON CORN AND MANGELS

Triangle Experiment

	Corn	Mangels
Average 21 fertilized plots over 21 unfertilized plots per acre	1 ton, 1,490 lbs.	
Average increase where no nitrogen was used per acre	3,507 lbs.	2,028 lbs. (decrease)
Average increase where no phosphoric acid was used	1,966 lbs.	4,139 lbs.
Average increase where no potash was used	3,317 "	4,992 "
Average increase per acre plots on which N. P_2O_5T were used	3,145 "	6,909 "
Average increase per acre where nitrogen and potash were used	1,547 "	4,164 "
Average increase per acre where P_2O_5 and K_2O were used	3,341 "	4,394 " (decrease)
Increase per acre, nitrogen alone	2,360 "	4,062 lbs.
Increase per acre, P_2O_5 alone	4,682 "	1,748 " (decrease)
Increase per acre, K_2O alone	2,985 "	4,112 lbs.

These results, while not at all conclusive, indicate that phosphoric acid on the corn crop resulted in considerable increase and that nitrogen was especially valuable with the mangel crop. Many inconsistencies were noted, however and the experiment will be repeated.

RIDGETOWN EXPERIMENTAL FARM.

The work at the Experimental Farm for 1923 was carried on to bring the farm into proper shape for experimental work rather than to do any large amount of strictly experimental work. Considerable permanent work was undertaken. Six men were employed continuously, and during the rush season some additional help was secured. The experimental work carried on, while not very extensive and conclusive, is a definite start along the line of greatest need in southwestern Ontario.

The Growing Season.

The spring opened late and growth was slow. The season was peculiar; the cool late spring followed by a very dry summer with an occasional rain only, while not disastrous, nevertheless had quite a serious effect upon many crops. The condition was quite local as farther west there was ample rainfall. The early frost on September 14th and 15th caught most of the corn and quite an acreage of tomatoes and a very large percentage of the tobacco. The tobacco crop was in many cases completely ruined and, where partically frozen, reduced very much in value.

Crops.

Thirty-four acres of fall wheat relieved the spring work and was sowed to clover. Thirty acres of oats were seeded heavily to sweet clover; eighteen acres included the twitch grass area. Part of the barley land was also seeded to sweet clover. The wheat yielded twenty-five bushels, the oats fifty bushels, and the barley thirty-five bushels per acre. The very dry weather effected the yields and also the stands of clover. Thirty-seven acres of corn promised to be a bumper crop, but the frost caught it and a large percentage was rather soft but cribbed very well. Twenty acres of beans promised well, but the very dry weather affected the filling and eighteen bushels per acre only were secured. Eight acres of early potatoes yielded a fair crop and sold at a very satisfactory price through the Kent Potato Growers' Associations.

Land Improvement.

The black muck land broken in August, 1922, was thoroughly underdrained in November. In October, 1923, a start in underdraining was made upon the clay lands between the railroads.

Considerable attention and extra work were put upon all fields to control the weeds with very satisfactory success.

Sweet clover is being used extensively to crowd out weeds and to build up the soil. No real difficulty has been experienced with it in the growing crops.

The soil survey showed the lack of lime in all of the sandy knolls; refuse lime from the Dominion Sugar Company, Chatham, was secured and applied insofar as time would permit. Humus and phosphates are required more than any other soil constituents. The former is being supplied through farmyard manure and clovers and the latter by using sixteen per cent. acid phosphate.

Thorough cultivation is given with all crops, but especially with the hoed crops.

The area infested with twitch grass is now nearly clean—the thorough cultivation in the first corn crop, the fall plowing and subsequent exposure and the cropping with the sweet clover have almost eradicated it. One more hoe crop should leave the field clean.

Buildings.

The piggery was completed and will accommodate at least 120 grown pigs. Colony houses are used for sleeping quarters and a covered cement floor for feeding, thereby bringing into use two important factors in the rearing of pigs in southwestern Ontario.

The old barn was renovated, the cattle shed nearly completed, and a top was put on the silo and the feed room enclosed.

A farm shop was arranged from the old pig pen, and the implement shed moved to a convenient location. The corn crib will hold 2,000 bushels of ear corn.

A double house was built for farm assistants.

Planting.

The laying out of large lawns will be dispensed with on account of cost of upkeep and only sufficient lawn with some shrubs to demonstrate how shrubbery may be used around the average farm house will be laid out. Three hundred and seven-eight shrubs, eleven English walnut, nineteen pear, thirty-four cherry, and twenty-one apple trees were planted in a scheme which would lend itself to any farm.

Fifty apple trees comprising Lipton, Patricia, Pedro, Hume, Joyce and, Melba varieties as a test for this section of the country were planted.

Filberts were planted to test their suitability and their usefulness as light hedges around dwellings or gardens.

Quite a large planting of Jack and Scotch Pine was put in for replanting purposes. The latter were secured from the Provincial Forestry Department and grew very well.

Extension Work.

The Department of Botany, Ontario Agricultural College, Guelph, co-operated with the farm in the fight against plant diseases, a member of its staff making the farm headquarters for careful investigations into the plant disease problems of Kent and Essex. The disease problem is a very important factor and already enough has been accomplished sufficient to protect many from some of the diseases and assisted many others in the cleaning up process. The demands upon his time were so great at some seasons that it was impossible for him to reach all; as the work becomes systematized and the results recognized, it will readily be seen that the fight against disease is perhaps the foremost one throughout the section.

The Departments of Botany, Chemistry, and Horticulture of the O. A. C., Guelph, co-operated heartily in the work. Such co-operation will prevent duplication, assist in securing results more quickly for southwestern Ontario and bring more thought upon particular problems.

The Kent County Potato Growers' Association after passing through a stormy season in 1922, required considerable attention which took several days. The season of 1923 was quite satisfactory; the system of handling the potatoes, though apparently drastic, proved to be correct and resulted in quite a large voluntary increase in membership and a satisfactory year for the growers. A large inquiry for seed potatoes has been the result.

The formation of Bean Growers' Co-operative Company was effected and many meetings were held, but other movements overshadowed the work for a time and it was allowed to lapse until the winter of 1923-24, when it will be again taken up.

Some time was taken up addressing Farmers' Club meetings, picnics and short courses. The organization of a Winter Fair for southwestern Ontario took considerable time.

Fertilizer and Seed; Tests with Early Potatoes.

This test was undertaken to ascertain which is the most economical commercial fertilizer to use in the growing of early potatoes. Tests on the farms of a number of growers will be carried on in order to arrive at correct conclusions for the various soils throughout the district.

Twenty-one mixtures were used on twenty-one rows, each being one-hundredth of an acre. The fertilizer was sown by hand, soil was drawn over it and the potatoes planted in the ordinary way with a planter. The plots were situated on very even land in the regular potato field and received the same cultivation as the other potatoes.

Eight check rows were considered. These were planted between the plots.

Only marketable potatoes were considered:

Plot	Fertilizer	Yield per acre in bushels	Increase yield over average of check rows	Value of increase per acre	Cost of fertilizer per acre	Return for $1 spent in fertilizer
1	0-16-0	226⅔	43	$57.33	$9.20	$6.23
2	0-12-4	270	86⅓	115.10	13.40	8.59
3	0-10-6	255	71⅓	95.10	13.24	7.18
4	0- 6-10	250	66⅓	88.44	12.88	6.86
5	0- 4-12	253⅓	69⅔	92.88	12.64	7.34
6	0- 0-16	203⅓	19⅔	26.21	15.86	1.65
7	4-12-0	236⅔	53	70.66	18.76	3.76
8	6-10-0	230	46⅓	61.77	20.88	2.95
9	10- 6-0	213⅓	29⅔	39.54	25.10	1.57
10	12- 4-0	196⅔	13	17.33	27.24	.636
11	16- 0-0	145	.....	.....	27.88	.....
12	12- 0-4	186⅔	3	4.00	26.86	.148
13	10- 0-6	191⅔	8	10.66	25.12	.424
14	6- 0-10	160	.....	.....	19.92	.....
15	4- 0-12	180	.....	.....	17.60	.....
16	3-10-3	255	71⅓	95.10	17.40	5.46
17	4- 6-6	253⅓	69⅔	92.88	18.18	5.10
18	3- 3-10	246⅔	63	84.00	16.74	5.01
19	6- 6-4	250	66⅓	88.44	20.49	4.32
20	6- 4-6	200	16⅓	21.77	20.74	1.049
21	10- 3-3	240	56⅓	75.10	24.84	3.02
8 check rows	none	Av. yield per acre of check rows, 183-⅔				

Fertilizer was applied at the rate of 800 pounds per acre.

Deductions.

1. The mixtures carrying high percentages of nitrogenous fertilizers do not appear to be as suitable and are the most expensive.

2. The mixtures used on plots 1 to 5 inclusive, and 16 to 21 inclusive, are the most promising for further work.

3. Further work is necessary to determine the advantage, if any, of using a fertilizer with nitrogen in it upon a soil in good tilth. A crop of sweet clover was plowed down in the spring as early as the season would permit.

4. Phosphates and potash appear to be the controlling factors, with emphasis on the phosphates as shown by plots 1, 6, 11, by 3 and 8, by 4 and 9, by 13 and 14, by 2 and 7, and by 5 and 10.

SEED TEST

Seed from	Old Ontario Cobbler	200.7	bus. per acre	
" "	Northern Ontario Cobbler	193.5	"	"
" "	Nova Scotia Cobbler	180.88	"	"
" "	Old Ontario Dooley	162.6	"	"
" "	North Ontario Dooley	157.08	"	"
" "	Old Ontario Green Mountain	220.5	"	"
" "	North Ontario Green Mountain	198.3	"	"
" "	P.E.I. Green Mountain	188.02	"	"

TEST TO DETERMINE INFLUENCE OF PRICE AND YIELD UPON RETURNS, DEPENDING UPON DATES OF DIGGING

Date of digging	Yield	Price	Value per acre
July 10	48.31 bags	$3.25 per bag	$157.00
" 17	78.106 "	2.22 "	173.39
" 24	104.81 "	2.02 "	212.71
" 31	109.3 "	1.75 "	191.27

The weather during the early summer had been very dry; the first digging took place during the morning of July 10th, and during the afternoon and night a rain amounting to 1.52 inches fell. No rains sufficient to influence potatoes came before the 31st. All early potatoes have sufficient growth by July 31st. The pool prices of the Kent County Potato Growers for those particular weeks are quoted.

SWINE EXPERIMENT.

The experiment carried on during 1922 was duplicated in 1923. The following questions and answers indicate the character and result of the experiment as far as it has been carried on:

1. Can the thick, fat hog be improved and fed and thereby produce Wiltshire sides, which will meet the requirements of the British market?

Perhaps they can in the hands of skilful breeders by careful selection, but it will be a slow process.

2. Can the so-called bacon breeds, and especially the Yorkshire, make gains as cheaply and as quickly as the thick, fat breeds, when fed under south-western conditions?

The results over the two years feeding indicate that they can be.

3. Will the bacon breeds, when fed upon at least seventy per cent. corn, produce Wiltshire sides?

Yes, if corn is not fed until about three months old and afterwards a balanced ration used.

4. Would it be advantageous to use cross-bred hogs for general production?

The cross-bred hog has so far proved to be an economical producer and should be valuable for general production. The use of the right type of boar is

particularly important. This is, no doubt, the surest way of improving the general quality of commercial hogs throughout western Ontario. However, great care must be exercised in the selection of boars.

Many of the pigs used were raised on the farm. The sows were only average in quality, in fact, what should be found upon any well kept farm; this particular grade of pure-bred sows was purchased to offset any argument that might be used against the experiment having been carried on with selected pigs from selected brood sows showing extreme type. All of the pigs saved from the spring litters were used. The Durocs, Polands, Chesters, the Tamworths, except one pen, one pen of Yorks, and two pens of Berkshires were purchased.

The following pigs were used:

Tamworths	4 pens	14 pigs
Tam-Duroc cross	1 pen	6 "
Berks	5 pens	17 "
Yorks	7 pens	31 "
Chesters	1 pen	3 "
Durocs	1 pen	3 "
Poland-China	1 pen	3 "

Equal parts of chopped oats, middlings and corn were fed at the beginning of the test with three per cent. oil meal and sufficient tankage to balance the ration. Throughout the test tankage was used to balance the ration—no milk or buttermilk was used. As the pigs advanced in age, the middlings were cut out and the corn gradually increased until each pen received seventy per cent. corn, twenty per cent. oats, six per cent. tankage, and three per cent. oil-meal. The final ration was fed for about four to six weeks.

Experimental work was also carried on with reference to corn, sugar beets, tobacco, and beans, and will be continued next season.

AGRICULTURAL DEVELOPMENT BOARD.

The following table shows the volume of work in Long Term Loans carried out under this organization during the past fiscal year, as compared to the previous fiscal year.

	Number Applications Passed	Amount of Loans Passed	Value of Security
1922	458	$2,040,605 00	$4,693,304 00
1923	953	3,729,350 00	8,685,166 00
Total	1,411	$5,769,955 00	$13,378,470 00

In addition to the loans actually granted, there were 281 which were formally considered by the Board involving a little over a million dollars, but not granted. The loans covered the full range of purposes set forth in the Act, but the disposal of encumbrances was possibly the main purpose for which money was loaned. The loans were well distributed over both Old and New Ontario. The average for Old Ontario was $4,862.30 which includes many farms of more than 100 acres, while the average for New Ontario was $1,837.45 In New Ontario a large proportion of the money is naturally used for building purposes.

The work of the Board has now progressed to the point where repayments are coming due and it is recognized that this is the real test of the operation of a project of this nature. During the past fiscal year, 599 accounts involving $44,276.81 became due. Of these, 33 accounts representing $1,394.61 or 3.15 per cent. of the total were outstanding at the close of the fiscal year. Payments became due on either December 1st or May 31st. Of those due on May 31st, there was naturally a larger proportion unpaid at the end of October than of those earlier. It is important that these payments be cleaned up without much delay as an accumulation of arrears would be disastrous for the borrower as well as for the Province.

Short Term Associations.

During the year the Board received numerous requests to explain the system under which an association for Short Term Loans could be formed. These requests were complied with and a considerable number of meetings were held, but only four new associations resulted. It is evident, therefore, that this plan is not growing rapidly.

Farm Loan Association	Number of Borrowers	Total Loans Granted	Interest Due	Principal Paid	Interest Paid
Roxboro	26	$17,600 00	$273 63	$300 00	$276 13
Mosa	16	9,760 00	.....	.....	.....
Sault	16	7,850 00	198 19	1,37203	221 84
Seneca	7	3,575 00	.....	.....	.....
Trafalgar	29	29,650 00	.....	2,500 00	77 01
Toronto	25	32,625 00	289 88	1,500 00	289 88
Balfour-Rayside	49	25,355 00	725 46	5,617 50	742 92
Cosby-Martland	29	7,950 00	250 93	1,222 63	272 46
Downie	28	24,565 00	.....	1,300 04	45 81
Ekfrid	30	27,685 00	469 27	4,225 00	482 80
Equesing	30	30,000 00	670 09	4,066 00	728 07
Glanford	12	10,600 00	151 46	700 00	156 18
Howard	18	15,050 00	241 55	1,500 00	259 01
Nassagaweya	28	19,460 00	756 07	1,328 00	756 07
Nelson	26	22,450 00	386 82	2,750 00	478 60
North Grimsby	30	26,700 00	.....	2,950 00	59 19
Total	399	$310,875 00	$4,413 35	$31,331 20	$4,845 97

As will be seen the interest was paid up in full and a small amount paid on the principal. As many of the loans had only been in existence for a short time, the renewal was perhaps not unnatural, but it should be understood that continued renewals are not to be expected.

Cost of Operation.

The total cost of operation for the year was $170,631.81, including the payment of interest on bonds and debentures, and the total earnings were $169,723.76. It will thus be seen that there was a deficit on the cost of operation of $908.05. Compared to the deficit of the previous year of $10,255.77, this indicates that the work should be self-sustaining very shortly if losses are not encountered to the point of offsetting the excess of revenue over cost of operation.

Ontario Department of Agriculture

FORTY-NINTH ANNUAL REPORT

OF THE

Ontario Agricultural College

AND

Experimental Farm

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
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1924

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R. E. Balch, B.S.A., Dean of Residence
Annie O. Hallett, Librarian
Mrs. K. Galbraith, Matron
Miss C. McKeil, Dietitian
Mrs. K. T. Fuller, Superintendent, Macdonald Hall

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S. R. Curzon, B.S.A., Food Investigation (Demonstrator)
M. Alice Purdy, Flour Testing
S. Waterman, B.S.A., Soil Investigation (Demonstrator)

FARM ECONOMICS

H. W. Clark, B.S.A., Assistant Director of Surveys
G. W. Michael, B.S.A., Chief Field Supervisor
C. W. Riley, B.S.A., Assistant Director of Cost Accounts

Enumerators:

W. S. Rowe, W. J. Fairweather, G. H. Edwards, B.S.A.,
J. B. Hoodless, B.S.A.

FIELD HUSBANDRY

A. W. Mason, B.S.A., Assistant Experimentalist
A. E. Whiteside, Plant Selection
John Buchanan, Specialist in Plant Breeding

HORTICULTURE

C. C. Eidt, B.S.A.

POULTRY

E. S. Snyder, B.S.A., M.S., J. F. Fraser, B.S.A.

EXTENSION STAFF

L. Stevenson, B.S.A., M.S., Director
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V. C. Lowell, B.S.A., District Supervisor of Drainage
W. P. Shorey, B.S.A., District Supervisor of Drainage
F. W. Presant, B.S.A., Assistant Vegetable Specialist

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AND
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John Evans ..... Professor of Manual Training
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A. Leitch, B.S.A. ..... Professor of Farm Economics
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Miss Annie Ross, M.D., C.M. ..... Lecturer in Physiology, Home Nursing and Psychology
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R. C. Moffatt, M.A. ..... Lecturer in Physics
D. A. Kimball, B.S.A. ..... Lecturer in Horticulture
F. L. Ferguson, B.S.A. ..... Lecturer in Physics
G. J. Spencer, B.S.A. ..... Lecturer in Entomology
J. Coke, B.S.A. ..... Lecturer in Farm Economics
W. H. Sproule, B.S.A. ..... Lecturer in Dairy Husbandry
A. Davey, B.S.A. ..... Lecturer in Bacteriology
R. G. Knox, B.S.A. ..... Lecturer in Farm Husbandry
A. C. Wheatley, M.A. ..... Lecturer in Chemistry
E. C. McLean, B.A. ..... Lecturer in English
E. E. Reilly, B.S.A. ..... Lecturer in Farm Economics
O. McConkey, B.S.A., M.S ..... Lecturer in Field Husbandry
D. R. Sands, B.S.A. ..... Lecturer in Botany
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Miss Alta V. Dickey ..... Instructor in Domestic Art
Miss Grace Conover, B.S. ..... Demonstrator in Domestic Science
Miss Belle Millar ..... Demonstrator in Dairying
Katharine B. Doughty ..... Instructor in Domestic Art
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T. J. McKinney ..... Instructor in Dairying
Miss J. C. Bradley ..... Demonstrator in Laundry and Household Administration
Margaret Reid, B.H.Ec ..... Instructor in Household Art
E. J. Dyce, B.S.A. ..... Demonstrator in Apiculture
R. E. Balch, B.S.A. ..... Instructor in English
Kathleen K. Pepler ..... Demonstrator in Physical Training—Macdonald Institute
D. F. Adams ..... Physical Instructor—O.A.C.

Ontario Agricultural College
and Experimental Farm
1923

To the Honourable the Minister of Agriculture.

SIR:—I beg to submit herewith my Fourth Annual Report as President of the Ontario Agricultural College.

The Memorial Hall

More than eight hundred of the students and alumni of the college enlisted for service in the Great War. More than one hundred lost their lives in that war.

Shortly after the Armistice, a project was started to preserve the memory of those men in some suitable and durable form. Subscriptions were solicited from graduates and friends of the college. The various classes in the college endorsed the project and contributed to the growing fund. By 1920 the plan took the shape of a Memorial Hall—an auditorium and assembly hall much needed at the college. Plans were prepared in that year, and the Legislature voted $40,000 to help in meeting the cost of the building. The fund grew slowly and this fact, coupled with uncertain building conditions in 1921, seemed to make a postponement advisable. The plans were submitted for tender early in 1922. The lowest tender was so much beyond the sum subscribed that the contract was not awarded. Early in 1923 new plans were submitted for tender and the contract was finally let, and the building commenced in May. On August 1st the cornerstone was laid, Honourable George Henry, Minister of Public Works, and formerly Minister of Agriculture in the Hearst government, officiating.

The building is now—at the end of December—nearly ready for the roof. With a few days of mild weather the building can be closed in, and interior construction continued through the winter. It is hoped that construction will be completed in time for opening in June, 1924.

It is now four years since the project was started. In that time the fund, apart from the legislative vote, has grown to $43,000. Subscriptions as they came in have been invested in interest-bearing securities, and the fund has been increased in this way by several thousand dollars.

In the fall of 1921, the students of the college became anxious lest further delay should mean final failure. Assent was secured from the Minister of Agriculture to the Memorial Hall project, and the site selected. The students then undertook to make the excavation with their own labour, and the enthusiasm was so unanimous that the excavation was completed in a few days. Several classes, both of graduates and of undergraduates, have contributed generously to the fund. Other classes have been represented by subscriptions of individual members.

Jubilee Anniversary

The year 1924 will mark the jubilee anniversary of the founding of the college. It is proposed to celebrate this anniversary with due ceremonies. The Alumni Association have organized committees for this purpose and the occasion will be marked with

> Pomp, and feast and revelry,
> With mask, and antique pageantry,

or, if something more seemingly modern and practical is devised, at least the history and growth of the college will be represented, and its contribution to the development of agriculture in Ontario for the last fifty years.

Genetics

This year provision was made for the appointment of a Professor of Genetics. An arrangement of mutual advantage to the college and to the University of Toronto has provided for the services of a Professor of Genetics to be shared between the two institutions. Dr. J. W. MacArthur, who was already on the staff of the Biology Department of the University, was appointed to give part time services to the college. He takes the necessary lectures in Genetics, gives whatever assistance is required in plant and animal breeding in the college departments, and conducts independent research in breeding problems.

Extension

The college has always carried on extension activities, much of it incidental. The staff of the college has been ready at all times to attend rural gatherings, whether called for educational or social purposes. Conventions and fairs have made their own calls upon the services of the college, and these calls have been attended to as liberally as the regular inside work of the college would permit. The college has aimed especially to co-operate with the Agricultural Representatives in field work, in attending meetings, and in district courses in agriculture. Some of the departments are equipped for special extension services. The Poultry Department has one extension man. The Physics Department is provided with men and apparatus for making surveys of farm lands for drainage purposes. The Department of Botany this year placed a "plant doctor" at the services of the fruit and vegetable growers in southwestern Ontario, with headquarters at the Experimental Farm at Ridgetown. The Professor of Entomology as Provincial Entomologist, and the Professor of Apiculture as Provincial Apiarist, devote most of their time during the summer to field work throughout the Province.

The Department of Chemistry has established demonstration plots at Simcoe and at Welland, partly to investigate, but chiefly to demonstrate methods of renovating soils. Much work is done in each of the Science Departments in examining and reporting upon specimens of diseased plants and animals, weeds, insects, soils, and dairy products that are sent in from all parts of the college constituency.

The increases in the college staff, and in corresponding college expenditures, during the last few years, have been mainly to provide for such extension services, all of which have been urgently called for in advance of such provision. In this way, more perhaps than in any other, college policies have taken shape to suit the needs of the times. These are critical times in Canadian agriculture,

when only the best farming can succeed. What assistance the college can give, in helping farmers to farm successfully, from the point of view of the national welfare, and profitably, from the point of view of keeping good farmers on the land, it is in accord with the public welfare that such assistance should be given to the limit of capacity.

To strengthen the extension forces of the college, Mr. Lionel Stevenson was this year appointed Director of Extension. Mr. Stevenson's report states in detail the work he has thus far undertaken.

Student Attendance

In numbers the student body has declined since last year—declined in every branch of instruction given except in Domestic Science. A comparative state is given:—

	1922	1923
General Courses	556	443
Short Courses	597	392
Domestic Science	396	408
Summer Courses	560	321

The decline in the general courses follows the general decline in attendance at all advanced technical institutions—agricultural colleges and schools of engineering. With few exceptions, all such institutions in Canada and the United States report decreases.

The decrease in the general courses may be accounted for by the prevailing depression in agriculture. This situation will right itself with the return of the normal balance in commodity prices.

It is gratifying to be able to state that there has been no falling off in the quality of students. In conduct, in seriousness, and in attainment, the record has been satisfactory. This year, for example, with a much smaller class than usual to choose from, the judging team that went to the International Exposition at Chicago made an unusually good record, both as a team and in individual standings.

The decline in attendance at short courses is probably due in part to the same cause: and partly to the direct short courses that were held in considerable number last winter. When the opportunity for much the same kind of instruction is offered right at home, many naturally will take advantage of the offer who otherwise would come to the college for two weeks or more.

The smaller number in attendance at the summer courses for teachers is a matter than concerns the Department of Education. The college has no control over these courses.

Changes in the Staff

Mr. Jenvey and Mr. Luckham, of the Department of Agricultural Economics, resigned early in the year to follow the occupation of farming.

Mr. Neilson resigned to join the staff at Vineland Experiment Station, and Mr. Kimball has been appointed to succeed.

Miss Montgomery resigned as dietitian, and Miss McKeil was appointed to the position.

The staff has been well maintained and research, teaching and extension work carried on extensively.

College Attendance

The following are the figures in each course held throughout the year. Figures for general course include students in attendance during the winter term of 1923, and the new students of the fall term.

General Course	443	
Specialists in General Course Work	9	
Dairy Courses	125	
Stock and Seed Judging	68	
Poultry Raising	31	
Horticulture	37	
Apiculture	37	
Drainage and Drainage Surveying	4	
Farm Power	62	
Milling and Baking	19	
		835
Domestic Science (at Macdonald Institute)		408
Summer Courses:		
High School Teachers—first year, 14; second year, 20	34	
Public School Teachers—first year, 66; second year, 128	194	
School for Rural Leadership	93	
		321
Total		1,564

ANALYSIS OF COLLEGE ROLL (GENERAL COURSE), 1923

From Ontario

Algoma	2	Kent	3	Prescott	3
Brant	11	Lambton	11	Prince Edward	1
Bruce	10	Lanark	9	Rainy River	0
Carleton	32	Leeds	6	Renfrew	1
Dufferin	3	Lennox and Addington	2	Russell	3
Dundas	5	Lincoln	18	Simcoe	13
Durham	4	Middlesex	21	Stormont	0
Elgin	12	Muskoka	4	Temiskaming	3
Essex	5	Nipissing	4	Thunder Bay	5
Frontenac	3	Northumberland	2	Victoria	2
Glengarry	4	Norfolk	5	Waterloo	6
Grenville	3	Ontario	6	Welland	2
Grey	6	Oxford	12	Wellington	35
Haldimand	8	Parry Sound	3	Wentworth	9
Halton	8	Peel	4	York	47
Hastings	3	Peterborough	2		
Huron	5	Perth	6	Total from Ontario	372

From Other Provinces of the Dominion

Alberta	4	New Brunswick	7	Prince Edward Island	2
British Columbia	13	Nova Scotia	13	Saskatchewan	7
Manitoba	1	Quebec	3	Total from other Provinces	50

From Other Countries

Bermuda	1	South Africa	1	U.S.A.	3
England	11	Switzerland	1	Total from other Countries	21
Ireland	2	Trinidad	1		
Scotland	1				

Grand Total 443

Age and Religious Denominations

The limits of age in the General Course, 1923, ranged from 18 years to 41 years. The average year was 22.5.

Religious denominations of students registered for the Fall Term were:—

Anglican	91	Evangelical	1	Presbyterian	147
Baptist	28	Friends	2	Roman Catholic	20
Congregational	9	Lutheran	2		
Church of Christ	6	Methodist	137		

DEGREES AND DIPLOMAS IN AGRICULTURE

The following students graduated in 1923 with the degree of Bachelor of the Science of Agriculture (B.S.A.)

Agriculture Option

Andrew, John F., London.
Balch, Reginald E., Guelph.
Baron, H. M., Amherst, Mass.
Bennett, J. C., Fredericton, N.B.
Blow, T. H., South Mountain.
Bratt, C. H., Coldwater, Mich.
Breckon, S. S., Georgetown.
Burke, W. L., Kingston.
Carbin, C. E., Arthur.
Champ, W. K., Harriston.
Cockburn, E. M., Newmarket.
Cole, H. A., Prescott.
Dawson, J. A., Britannia Bay.
Dickson, W. R., Guelph.
Elliott, H. C., Galt.
Ellsworth, K. S., Ridgeway.
Fraser, J. F., Guelph.
Garner, J. A., Chesley.
George, W. B., Guelph.
Goudie, E. B., Preston.
Gray, E. L., Chatham.
Hellyer, E. K., Kenilworth.
Hill, D. I., Staffa.
Hilton, S. A., Nappan, N.S.
Horne, G. C., Toronto.
Horning, H. R., Harriston.
Howard, H. F., Lyn.
Howard, J. W., Malton.
Hutt, F. B., Winnipeg, Man.
Kezar, J. H., Edenwold.
Livingstone, W. M., Frankville.
MacCharles, H. R., Baddeck Bridge, N.S.
Mackenzie, A. W., Markdale.
Mahoney, G. E., Keswick.
Marston, A. R., Caledonia Springs.
Miller, E. A., Rodney.
Moore, J. M., East Lansing, Mich.
Mutrie, G. W., Toronto.
McCallum, J. M., Ottawa.
McClelland, T. H., Toronto.
McKenzie, R. M., Pakenham.
McKenzie, W. A., Thamesville.
McLelland, W. H., Staffa.
McLennan, F. C., Walkerville.
McLeod, J. H., Napanee.
North, F. G., Macdonald College, P.Q.
Parent, R. C., Fredericton, N.B.
Payne, R. L., West Bathurst, N.B.
Phillips, F. A., Oakville.
Pilkey, C. G., Claremont.
Riddell, W. K., Walkerton.
Schell, N. C., Woodstock.
Senn, W. E., Essex.
Smith, J. B., Hamilton.
Sorley, D. M., Ottawa.
Summers, E. A., Renfrew.
Synnott, N. E., Stayner.
Thomas, N. J., Guelph.
Wallace, W. M., Woodslee.
Williamson, W. H., Paris.
Wood, S. F. S., Moncton, N.B.

Apiculture Option

Disbrowe, H. B., Iroquois Falls.
Dyce, E. J., Guelph.
Kirk, J. R., Almonte.
Richmond, R. G., College Station, Texas.
Speers, W. C., Palmerston.
Ward, B. A., Toronto.
Werner, A. A., Nanticoke.
Wilson, J., Oakville.
Young, W. A., Toronto.

Bacteriology Option

Carr, C. L., St. Anne de Bellevue, P.Q.
Gibbard, J., Toronto.
Young, H. E., Deseronto.

Biology Option

(Botanists)

McCallan, S. E. A., Ithaca, N.Y.
Riley, C. G., Milford Bay.
Stanley, J. H., Guelph.

(Entomologists)

Brink, J. E., Woodstock.
Ficht, G. A., Ottawa.
Graham, A. J., Vineland.
Herney, G. E., Round Hill, N.S.

Chemistry and Bacteriology Option

Ruhnke, G. N., Guelph.
Thompson, A. F. W., Cheltenham.
Wilson, G. C., Brantford.

Chemistry and Physics Option

Manning, E. S., Chatham.

Dairy Option

Altenburg, M. J., Akron, N.Y.
Beattie, D. M., Regina, Sask.
Bennett, G. E., Detroit, Mich.
Blaney, N. M., London.
Chisholm, J. J., Guelph.
Collier, S. G., Regina, Sask.
Derby, H. A., Edmonton, Alta.
Dobie, J. R., Toronto.
Fleming, M. E., Gravelbourg, Sask.
Hinchley, H. R., Seaforth.
Jones, W. F., Belleville.
Joss, S. L., Almonte.
Kinsman, W. R., Truro, N.S.
MacBeth, N. H., Hamilton.
Silcox, W. B., Regina, Sask.
Sneyd, H. N., Guelph.
Stothers, I. F., New Liskeard.

Horticulture Option

Beattie, A. G., Ibadan, Africa.
Buckley, E. N., Ottawa.
Bunner, W. K., Pickering.
Burrows, R. R., Ottawa.
Crossgrove, R. F., Guelph.
Davey, S. H., Meaford.
Hickling, E. F., Barrie.
Hillier, K. R., Camlachie.
Hinrichs, Geo., Forest Hill, N.Y.
Macdermid, J. L., St. Catharines.
Marston, E. H., Guelph.
Murray, H. R., Hintonburg.
McGiffin, J. S., Bowmanville.
Presant, F. W., Guelph.
Richmond, A. G., Guelph.
Rogers, T. C., New Brunswick, N.J.
Rutherford, A. N., Grimsby.
Scott, G. A., Perth.
Smith, C. A. S., Cataraqui.
Smith, C. E. S., Truro, N.S.
Upshall, W. H., Vineland Station.
Vignale, J. R., Port of Spain, Trinidad.
Van Haarlem, J. R., Vineland Station.
Wood, T. J., Lakefield.

RECIPIENTS OF ASSOCIATE DIPLOMAS, 1923

Armstrong, Eric, Sunderland, England.
Baird, Frank F., Chipman, N.B.
Borthwick, Gordon, Toronto.
Chalmers, John E., Poole.
Clark, Thomas B., Woodstock.
Cormack, A. E., Whitby.
Dyer, William C., Columbus.
Forward, Bower, Ottawa.
Harris, Alexander L., New Denver, B.C.
Heggie, George R., Vernon, B.C.
Hunter, Harold E., Toronto.
Kennedy, Arnold H., Otterville.
Kennedy, Almanzor R., Otterville.
Lang, John M. S., Surrey, England.
Lawrence, Fred J. A., Dresden.
Munro, D. H. W., Fort William.
McCully, Norman G., St. Marys.
McEwan, John Walter G., Melfort, Sask.
Paine, Edward M., Orillia.
Richardson, Fred., St. Pauls.
Rivaz, Charles P., Palermo P.O.
Robinson, Hector W., Watford.
Rogers, Edwin W., New Lowell.
Snyder, Russell G., St. Anns.
Wood, Robert W., Bristol, England.

Professional Dairy School Certificates Issued During 1923

(Buttermaking)

Armstrong, F., Thamesford.
Bradd, C. C., Toronto.
Cramm, R., North Bruce.
Emmerson, S. D., Maple Creek, Sask.
Gloin, H. A., Bismarck.
Gray, E. E., Markdale.
Kipfer, I., Silverdale.
Lobsinger, R., Ayton.
McKay, B. G., Dundalk.
McKenzie, W. S., Toronto.
Parish, W. S., Orillia.
Stringer, A., Mindemoya.
Vaughan, L., Douglas.
Webb, R., St. Thomas.
Weber, E., Stratford.
Wilde, E., Fergus.
Wilken, W., Elmira.
Youngs, S. F., Dublin.

(Cheesemaking)

Ariss, J. S. H., Ennismore.
Campbell, W., Norham.
Such, J. W., Port Burwell.

MEDALS, SCHOLARSHIPS AND PRIZES AWARDED, APRIL, 1923

1905 Scholarship

($50 in cash awarded by a committee of '05 graduates at the college, to the best "all round" man at the close of his third year)—F. B. Moran, 1402 Sprague Street, Fort William, Ont.

Governor-General's Silver Medal

(For general proficiency, first and second year work)—James Marshall, West Summerland, B.C.

George Chapman Scholarship

($20 in cash for proficiency in English (degree course), first and second years)—James Marshall, West Summerland, B.C.

Second Year Special Essay

($10 in cash)—C. E. Freeman, Bowesville, Ont.

General Proficiency Prize

($10 cash, first and second year work)—James Marshall, West Summerland, B.C.

Farmers' Advocate Scholarship

(General proficiency in Animal Husbandry and Field Husbandry, first and second years (degree course)—W. C. Dyer, Columbus, Ont.

Scholarships of $20 each Awarded for Proficiency in Groups of Subjects as Outlined in the Calendar—First Year

ASSOCIATE

Group 1—H. R. Fisher, Downsview, Ont.
Group 2—A. S. D. Jillard, Glandford Station, Ont.
Group 3—F. Morwick, Jerseyville, Ont.
Group 4—E. T. Goring, Newvale, South Africa.

DEGREE

Group 1—W. B. Reynolds, O.A.C., Guelph.
Group 2—M. J. Morton, 237 Liverpool Street, Guelph.
Group 3—W. A. Young, Chippawa, Ont.
Group 4—G. S. Walley, Ingersoll, Ont.

FOURTH YEAR

($10 in cash to the student ranking highest in general proficiency, and shall obtain first-class honours in his major subjects)—G. N. Ruhnke, 91 Wellington Street, London, Ont.

Respectfully submitted,

J. B. Reynolds,
President.

MACDONALD INSTITUTE

The Normal Course in Home Economics

Nineteen entered this course in September, 1921; eighteen passed to the senior class in June, 1922; seventeen passed the final examinations in June, 1923, and have received the Macdonald Institute Teacher's Certificate in Home Economics.

Eleven entered the course in September, 1922; ten passed to the senior class in June, 1923; and nine are now in attendance.

Nine entered the junior class in September, 1923, and are now in attendance.

The academic requirement for entrance to the Normal Course is now Ontario First or Second-class Teacher's Certificate or the equivalent from other provinces. The new regulation began with the class entering September, 1922.

The Associate Course

Thirty-one entered in September, 1921; twenty-nine passed to senior class in June, 1922; twenty-three passed the final examinations in June, 1923, and have received the Macdonald Institute Associate Diploma.

Forty entered the course in September, 1922; thirty-six passed to the senior class in June, 1923; and thirty-five are now in attendance, including one student who received credit for her first year on work taken in Household Science at the College of Education, Toronto.

Forty-one entered the junior class in September, 1923, and are now in attendance.

The academic requirement for entrance to the Associate Course is now Junior Matriculation. The new regulation began with the class entering September, 1922.

The Institutional Management Course

Fourteen entered this course in September, 1921; thirteen passed to the senior class in June, 1922; nine passed the final examination in June, 1923, and have received the Macdonald Institute Institutional Management Certificate.

Eight entered the course in September, 1922; four passed to the senior class in June, 1923, and five are now in attendance, including one who received credit for the first year on work taken at the Toronto Technical School and at Columbia University, New York.

Nine entered the junior class in September, 1923, and seven are now in attendance, two having transferred to other course.

The Homemaker Course

Forty entered the course in September, 1922, one transferred to this course in January, 1923, and two short course students, who were successful at the Christmas examinations given to the Homemaker Course were admitted to this course January, 1923; twenty-one passed the final examinations in June, 1923;

one other completed the course by writing a supplemental examination in September, 1923, and twenty-two have received the Macdonald Institute Homemaker Diploma.

Forty were admitted to the course in September, 1923, and forty are now in attendance.

The Short Course

There have been in attendance:

In Winter term—January, 1923, to March, 1923	22
In Autumn term—September, 1923, to December, 1923	11

Optional Courses

Sixteen optional students joined various clothing, food, and lecture courses during the year.

Student Worker

One student worker has taken the opportunity to pay for a course by serving in the dining-hall.

Summary of Attendance in 1923

A—January to June, completing the College year 1922-1923.

1. Normal Course in Home Economics—two-year course:—	
(*a*) Juniors	11
(*b*) Seniors	12
2. Associate—two-year course:—	
(*a*) Juniors	37
(*b*) Seniors	26
3. Institutional Management—two-year course:—	
(*a*) Juniors	6
(*b*) Seniors	10
4. Homemaker—one-year course	35
5. Short Course in Home Economics:—	
(*a*) Winter	22
(*b*) Spring	0
6. Optional Students:—	
(*a*) Winter	8
(*b*) Spring	5
7. Student Worker	1
8. Public School Classes	59

B—September to December, opening the College year of 1923-1924.

1. Normal Course in Home Economics—two-year course:—	
(*a*) Juniors	9
(*b*) Seniors	9
2. Associate—two-year course:—	
(*a*) Juniors	41
(*b*) Seniors	35
3. Institutional Management—two-year course:—	
(*a*) Juniors	7
(*b*) Seniors	5

4. Homemaker—one-year course	40
5. Short Course in Home Economics—(Fall)	11
6. Optional Students—(Fall)	2
7. Student Workers	0
8. Public School Classes	59
C—Students entered in both above lists	47
D—Total number of students in 1922	396
Total number of students in 1923	408

GRADUATES OF MACDONALD INSTITUTE, O. A. C., 1923

Graduates of the Two-Year Normal Course in Home Economics (1921-1923):—

Jessie E. Borden, Hantsport, N.S.
Helen V. Brown, Sawyerville, Que.
Elsie B. Cameron, Carleton Place.
Olive Chown, Kingston.
Eulalia Gray, Guelph.
Anne D. Fleming, Galt.
Marjorie Gill, Pretoria, S.A.
Margaret J. Ketchen, Fergus.
Jennie MacDiarmid, Almonte.
E. Wynter Maxwell, New Westminster, B.C.
Dorothy M. Morse, Somerset, N.S.
Elizabeth C. Newitt, Dundas.
Rhea Peever, Hamilton.
Sophia M. Schwalm, Winnipeg, Man.
Jean C. Shearer, Ottawa.
Marion N. Stodart, Honolulu, Hawaiian Is.
Hazel A. Thomas, Winnipeg, Man.

Graduates of the Two-Year Institutional Management Course (1921-1923):—

Eleanore E. Almas, Hagersville.
Katie Burns, Brantford.
Elizabeth A. Fair, Kingston.
Elizabeth Hardy, Bowesville.
Florence M. Jarvis, Hamilton.
Alice C. Langley, Regina, Sask.
Marion McEwen, Brantford.
Frances Nunan, Guelph.
Evelyn Shortreed, Guelph.

Graduates of the Two-Year Institutional Management Course, having completed six months' successful Institutional Management work, are entitled to the Professional Institutional Management Certificate (1920-1922):—

Carrie Hill, Cornwall.
Winifred Lewis, Ottawa.

Graduate of the Two-Year Institutional Management Course (1915-1916), having completed six months' successful Institutional Management Work, is entitled to the Professional Institutional Management Certificate:—

Miriam Dunbar, Guelph.

Graduates of the Two-Year Associate Course (1921-1923):—

Kate D. Armour, Vancouver, B.C.
Doris E. Cowan, Peterborough.
Constance Davis, Hamilton.
Doris E. M. Elton, Cowley P.O., Alta.
Agnes N. Grant, Blenheim.
Joan I. Hamilton, Nelson, B.C.
Marjorie Harris, Cobourg.
Beatrice Hedley, St. Catharines.
Esther M. Hopkins, Burlington.
Florence E. Kelly, London.
Lucille C. Kuhn, Hamilton.
M. L. Asta Low, Ottawa.
Elizabeth McArthur, Appin.
Gertrude McKelvey, Kingston.
Elizabeth McKenzie, Beaverton.
Catharine R. Minnes, Kingston.
La Verne Mitchener, St. Thomas.
Hilda L. Munson, Burlington.
Eleanore M. Robinson, London.
Helena M. Robinson, Toronto.
Louie Smith, Weston.
Mabel A. Wilford, Salford.
Marion I. Willson, Fonthill.

Graduate of the Two-Year Associate Course (1918-1920, 1922):—

Gundrid Rebbeck, Gravenhurst.

Graduates of the One-Year Homemaker Course (1922-1923):—

Dorothy Anderson, Pembroke.
Eleanor Armstrong, Cobourg.
Vera Ayres, Mt. Hamilton.
Mary C. Bland, Malton.
Norma S. Bruce, St. Thomas.
Florence M. Buck, Brantford.
Marguerite A. Endean, Richmond Hill.
Millicent Field-Marshall, Beamsville.
Lillian J. Govan, Indian Head, Sask.
Helen W. Gurd, Sarnia.
Helen I. Halliday, Indian Head, Sask.
Katharine E. Lett, Barrie.
Helen McConvey, London.
Helen L. McLaughlin, Hamilton.
Alice M. Pringle, Hamilton.
Margaret C. Richardson, Hamilton Beach.
Marion G. Simpson, Hamilton.
Margaret M. Stark, Milton.
Lotta M. Sterne, Brantford.
Mary E. Speers, Bronte.
Mabel Tomkins, Newburgh.
Audrey Tunks, Wilton Grove.

REPORT OF LOAN COLLECTION

Requests

Home Interests	46	Social	19
Nutrition and Food	54	Textiles and Clothing	10
Health	15	Special Letters	12
Household Economics	4	Referred to Massey Library and other Departments	131
Education	14		
		Total	305

Answered by—500 folders, articles and clippings, 97 books and 11 magazines.

Respectfully submitted,
OLIVE CRUIKSHANK,
Director.

FINANCIAL STATEMENT

COLLEGE DEPARTMENT

Expenditure

Salaries and wages	$178,476 38
Servants' pay-list	12,991 95
Mechanical supplies	218 72
Library supplies and expenses	2,998 71
Meat, bread, groceries, laundry, engine-room supplies and fuel	110,145 55
Advertising, printing, postage and stationery	5,895 32
Short courses	2,913 61
Temporary assistance	4,982 75
Purchase and maintenance of autos, trucks and tractors, O.A.C.	2,681 83
Student labour	2,867 31
Travelling expenses and extra lectures	4,976 09
Expenses, College judging team	400 00
Scholarships	110 00
Telephone service, rents, etc.	1,189 56
Furnishings and repairs	13,184 36
Feed for horses	73 85
Contingencies	1,827 99
Rebate, fees to students	2,999 00
Maintenance of gymnasium	898 43
Total expenditure	$349,831 41
Less revenue	130,857 71
Net expenditure	$218,973 70

Revenue

Board	$100,510 69
Tuition and laboratory fees	21,967 50
Rent of rooms	526 70
Rent of houses	6,263 50
Rent of post-office boxes	40 00
Supplemental examinations	312 00
Fines, breakages, etc.	995 53
Sundries	241 79
Total revenue	$130,857 71

Student Labour

Total per Month

November	$459 28
December and January	230 81
February	129 34
March	333 55
April and May	270 52
June	251 52
July	359 25
August	239 68
September	422 98
October	170 38
Total	$2,867 31

To different Departments

College	$1,244 15
Mechanical	26 64
Chemical	12 00
Bacteriology	50 54
Gymnasium	39 15
Physics	58
Macdonald Institute	6 75
Farm	112 41
Experimental	607 97
Dairy	49 00
Poultry	108 15
Horticulture	601 24
Apiculture	8 73
Total	$2,867 31

FORESTRY

Expenditure

Contingencies	$999 03

BACTERIOLOGY DEPARTMENT

Expenditure

Stenographer	$850 00
Janitor	950 00
Supplies and expenses	4,195 42
Total expenditure	$5,995 42
Less revenue	2,056 50
Net expenditure	$3,938 92

Revenue

Sale of Cultures, as per statements rendered monthly	$2,056 50

BOTANY DEPARTMENT

Expenditure

Stenographer	$720 00
Janitor	950 00
Travelling and other expenses in connection with plant diseases	494 54
Supplies and expenses	1,898 94
Total expenditure	$4,063 48

CHEMISTRY DEPARTMENT

Expenditure

Stenographer	$770 00
Janitor	450 00
Supplies and expenses	4,795 19
Total expenditure	$6,015 19
Less revenue	569 00
Net expenditure	$5,446 19

Revenue

Chemical analyses, as per statements rendered monthly	$569 00

ENTOMOLOGY DEPARTMENT

Expenditure

Supplies and expenses	$2,498 74
Stenographer	650 00
Corn-borer investigation	1,971 84
Total expenditure	$5,120 58

ENGLISH DEPARTMENT

Expenditure

Supplies and expenses	$499 90
Secretary for loan library, and stenographer	840 00
Total expenditure	$1,339 90

MANUAL TRAINING DEPARTMENT

Expenditure

Janitor	$950 00
Supplies and expenses	958 38
Total expenditure	$1,908 38

PHYSICS DEPARTMENT

Expenditure

Stenographer	$720 00
Salaries and expenses in drainage work	7,495 67
Supplies and expenses	1,755 25
Total expenditure	$9,970 92

FARM ECONOMICS DEPARTMENT

Expenditure

Farm surveys, services, travelling and other expenses, and equipment purchase and maintenance of automobiles, and contingency	$ 26,789 18

MACDONALD INSTITUTE AND HALL

Expenditure

Salaries and wages	$ 25,438 67
Servants' pay-list	3,865 53
Meat, bread, groceries, laundry, engine-room supplies, fuel, furnishings, and labour on Macdonald grounds	24,993 73
Maintenance of laboratories in Institute	2,098 33
Library and stationery	749 73
Contingencies	477 32
Total expenditure	$ 57,623 31

FARM DEPARTMENT

Expenditure

Permanent improvements	$976 25
Wages of men and foreman	15,531 56
Purchase and maintenance of live stock	14,347 25
Farm maintenance (including repairs, blacksmithing, binder-twine, seeds, furnishings, fuel, light, advertising, printing, stationery, tools, implements, etc.)	4,477 98
Stenographer	750 00
Contingencies	325 01
Total expenditure	$36,408 05
Less revenue	18,116 87
Net expenditure	$18,291 18

Revenue

Sale of Cattle:—		
8 Bulls at from $40.00 to $220.00	$1,405 00	
52 Cows at from $5.00 to $660.00	3,354 00	
8 Calves at $20.00	160 00	
30 Beef carcass, 26775 lbs. at from 4¾ to 10c	1,737 37	
		$6,656 37
Sale of Pigs:—		
52 Boars at from $7.50 to $35.00	$1,149 48	
77 Sows at from $17.50 to $92.50	3,542 00	
75 Hogs, 15368 lbs. at from 8¼c. to 11c	1,441 38	
		6,132 86
Sale of Sheep:—		
14 Rams at from $15.00 to $35.00	$275 00	
25 Ewes at from $3.50 to $17.50	233 00	
5 Lambs at $6.00	30 00	
5 Lambs, 558¾ lbs. at from 12c. to 12½c	67 55	
		605 55

Sale of Milk:—		
17,129 quarts at 7c.	$1,199 03	
95,075½ lbs. at from $1.65 to $2.80 cwt.	2,461 35	
28.49 lbs. butter-fat at 55c. lb.	15 67	
		$3,676 05
Service of animals		340 00
Sale of 6 bushels oats at 80c.		4 80
Sale of 890 lbs. wool at from 17.263c. to 27.7c. lb.		192 44
Sale of 1 old corn-binder		55 00
Sundries		3 80
Feed of horses—hay for 15 horses for 1 year at $30.00 each		450 00
Total revenue		$18,116 87

FIELD HUSBANDRY DEPARTMENT

Expenditure

Permanent improvements	$1,778 31
Foreman, teamsters and labourers	14,498 79
Seeds, manure and special fertilizers	739 69
Furnishings, implements, repairs, blacksmithing, etc.	995 48
Printing, postage, stationery, contingencies, etc.	665 53
Purchase and feed of horses	476 37
Stenographers (three)	2,200 00
Total expenditure	$21,354 17

DAIRY DEPARTMENT

Expenditure

Permanent improvements	$243 75
Wages, including cheesemakers, buttermakers and bookkeeper, assistant and official tester of dairy cattle	2,499 04
Purchasing, hauling and manufacturing milk into butter and cheese	5,781 32
Furniture, furnishings, repairs, etc., laboratory expenses, gas, chemicals, etc., and contingencies	1,475 90
Fuel and light	3,031 45
Total expenditure	$13,031 46
Less revenue	7,471 10
Net expenditure	$5,560 36

Revenue

Sale of cheese, 12,135¾ lbs. at from 10c. to 60c.		$2,554 07
Sale of butter, 2,776½ lbs. at from 20c. to 54c.	$1,006 99	
2,169.44 lbs. butter-fat, at from 31c. to 46c.	921 36	1,928 35
Sale of cream, 806 quarts at from 50c. to 70c.		431 17
Sale of ice cream, 2,165 pints at from 22c. to 30c.	$537 36	
106 gallons at $1.35	143 10	
		680 46
Sale of milk, 5,334½ quarts at from 8c. to 10c.	$460 95	
10,500 lbs. at $2.70 cwt.	283 50	
		744 45
Sale of skim and buttermilk, 230,012 lbs. at 30c. cwt.		690 04
Sale of whey milk, 125,500 lbs. at 5c. cwt.		62 76
Pasteurizing milk, 51,590 lbs. at 70c. cwt.		361 14
Sundries		18 66
Total revenue		$7,471 10

DAIRY SCHOOL

Expenditure

Wages of instructors, engineer, janitor, stenographer and bookkeeper	$1,380 96
Cleaning, painting, repairs and contingencies	252 04
Dairy appliances, separators, vats, expenses, cheese and butter judges, inspecting factories, etc.	376 40
Advertising, printing, stationery, postage, books, papers, etc.	147 44
Fuel and light	597 67
Purchase of milk for cheesemaking and cost of hauling milk and cream	5,123 84
Total expenditure	$7,878 35
Less revenue	2,701 56
Net expenditure	$5,176 79

Revenue

Sale of cheese, 5,727¼ lbs. at from 18c. to 60c.		$1,443 52
Sale of butter, 354 lbs. at from 20c. to 35c.		102 45
Sale of cream, 251 quarts at 50c.		125 50
Sale of ice cream, 811 pints at from 22c. to 30c.	$223 34	
81 gallons at $1.35	109 35	
		332 69
Sale of milk, 165½ quarts at 10c.		16 55
Sale of skim and buttermilk, 102,300 lbs. at from 30c. to 70c. cwt.		322 90
Sale of whey milk, 62,500 lbs. at 5c. cwt.		31 25
Pasteurizing milk, 31,100 lbs. at 70c. cwt.		217 70
Fees		96 00
Sundries		13 00
Total revenue		$2,701 56

POULTRY DEPARTMENT

Expenditure

Wages	$5,192 00
Furnishings and repairs	2,989 32
Permanent improvements	293 26
Purchase of stock	393 79
Fuel, light and contingencies	2,381 14
Experiments with incubator, fattening and feeds	10,191 18
Feed of horses	60 00
Poultry extension work, including purchase and maintenance of automobiles	4,494 14
Stenographer	950 00
Total expenditure	$26,944 83
Less revenue	12,902 45
Net expenditure	$14,042 38

Revenue

Sale of Live Poultry:—		
1,432 live birds for	$3,617 75	
417 day-old chicks at 10c.	41 70	
		$3,659 45
Sale of dressed poultry, 6,878¼ lbs. at from 20c. to 60c.		1,729 68
Sale of eggs for hatching, 510½ setts at from $1.00 to $2.00	$946 50	
15,498 eggs at from 3½c. to 25c. each	1,621 78	
		2,568 28
Sale of eggs for domestic use, 14,517 5/12 dozen at from 20c. to 75c.		4,944 29
Sundries		75
Total revenue		$12,902 45

HORTICULTURE DEPARTMENT

Expenditure

Permanent improvements	$1,179 18
Foreman, fireman, teamsters and labourers	16,999 98
Trees, plants, seeds, bulbs, fertilizers, implements, tools, furnishings, repairs and contingencies	6,800 59
Fuel and light	2,249 43
Feed of horses	421 34
Stenographers (two)	850 00
Draughtsman	1,049 93
Total expenditure	$29,550 45
Less revenue	3,546 66
Net expenditure	$26,003 79

Revenue

Sale of fruit, vegetables, etc., as per statements rendered monthly	$3,546 66

APICULTURE DEPARTMENT

Expenditure

To provide for equipment, maintenance and wages	$1,598 60
Stenographers (two)	1,450 00
Queen rearing apiary maintenance	1,975 65
Total expenditure	$5,024 25
Less revenue	509 30
Net expenditure	$4,514 95

Revenue

Sale of honey, etc., as per itemized statement rendered monthly	$509 30

SUMMARY

	Expenditure	*Revenue*	*Net Expenditure*
College	$349,831 41	$130,857 71	$218,973 70
Foresty	999 03	.....	999 03
Bacteriology	5,995 42	2,056 50	3,938 92
Botany	4,063 48	.....	4,063 48
Chemistry	6,015 19	569 00	5,446 19
Entomology	5,120 58	.....	5,120 58
English	1,339 90	.....	1,339 90
Manual Training	1,908 38	.....	1,908 38
Physics	9,970 92	.....	9,970 92
Farm Economics	26,789 18	.....	26,789 18
Macdonald Institute and Hall	57,623 31	.....	57,623 31
Farm	36,408 05	18,116 87	18,291 18
Field Husbandry	21,354 17	.....	21,354 17
Dairy	13,031 46	7,471 10	5,560 36
Dairy School	7,878 35	2,701 56	5,176 79
Poultry	26,944 83	12,902 45	14,042 38
Horticulture	29,550 45	3,546 66	26,003 79
Apiculture	5,024 25	509 30	4,514 95
	$609,848 36	$178,731 15	$431,117 21

Ontario Department of Agriculture

FORTY-FIFTH ANNUAL REPORT

OF THE

AGRICULTURAL

AND

EXPERIMENTAL UNION

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
Printed by CLARKSON W. JAMES, Printer to the King's Most Excellent Majesty
1924

PRODUCED BY
The United Press
LIMITED
TORONTO
CANADA

To His Honour Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

I have the pleasure to present herewith for the consideration of your Honour the report of the Agricultural and Experimental Union for 1923.

Respectfully submitted,

John S. Martin,
Minister of Agriculture.

Toronto, 1924.

Ontario Agricultural and Experimental Union

OFFICERS FOR 1923

President.....Jack Baker, Hampton, Ont.
Vice-President.....William Elliott, M.P., Galt, Ont.
Secretary.....C. A. Zavitz, Agricultural College, Guelph.
Assistant Secretary.....W. J. Squirrell, Agricultural College, Guelph.
Treasurer.....A. W. Mason, Agricultural College, Guelph.
Directors.....Pres. J. B. Reynolds, J. W. Widdifield, A. Shantz, W. H. Porter, M. W. Staples.
Auditors.....R. C. Moffatt and A. M. Porter.

COMMITTEES ON CO-OPERATIVE EXPERIMENTAL WORK

Field Husbandry.....C. A. Zavitz (Director), W. J. Squirrell, A. W. Mason, A. E. Whiteside, O. McConkey.
Agricultural Botany.....J. E. Howitt (Director), T. G. Raynor, Herbert Groh, W. J. Lennox.
Forestry.....E. J. Zavitz (Director), A. H. Tomlinson, H. A. Dorrance.
Agricultural Chemistry.....R. Harcourt (Director), S. Waterman, J. A. Neilson, A. H. MacLennan.
Apiculture.....F. E. Millen (Director), G. L. Jarvis, O. E. Cameron.
Farm Literature.....O. J. Stevenson (Director), W. C. Blackwood, R. E. Balch.
Agricultural Physics.....W. C. Blackwood (Director), R. R. Graham, R. C. Moffatt, F. L. Ferguson.
Bacteriology.....D. H. Jones (Director), T. H. Lund, A. Davey.
Animal Husbandry.....Wade Toole (Director), J. Steckley, R. G. Knox, G. E. Raithby.

TREASURER'S REPORT, 1923

Receipts	
Balance from 1922	$2,258 99
Government Grant	1,500 00
Membership Fees, 182 at 50c	91 00
Interest	37 44
	$3,887 43

Expenditures	
Agricultural Experiments	$1,988 77
Agricultural Physics	290 35
Agricultural Chemistry	112 82
Agricultural Botany	97 75
Expenses, Annual Meeting, 1923	280 00
Meetings of Executive	25 09
Printing, Postage, etc., Annual Meeting, 1924	155 28
Total	$2,950 06
Balance on hand	937 37
	$3,887 43

Ontario Agricultural and Experimental Union

ANNUAL MEETING

The annual meeting of the Ontario Agricultural and Experimental Union usually held at the Ontario Agricultural College during the second week in January has been postponed until Thursday, June 12th. The semi-centennial celebration of the founding of the Ontario Agricultural College will be held during the same week. The year 1924 will also be the forty-fifth anniversary of the Ontario Agricultural and Experimental Union. A detailed programme of the annual meeting will be forwarded to all members and co-operative experimenters of the Union in the latter part of May. On account of holding the annual meeting at this time it was deemed expedient that the results of co-operative experiments conducted during the past year should be published as early as possible.

REPORT OF CO-OPERATIVE EXPERIMENTS IN FIELD HUSBANDRY FOR 1923, INCLUDING TESTS OF CEREAL GRAINS, POTATOES, ROOTS, FODDER CROPS, HAY CROPS, ETC.

W. J. Squirrell, Associate Professor in Field Husbandry, O.A.C. Guelph

In 1923 the committee on Co-operative Experiments in Field Husbandry was as follows: C. A. Zavitz (Director), W. J. Squirrell, A. W. Mason, A. E. Whiteside and O. McConkey. The co-operative experiments in field husbandry were started in 1886 in a small way, and this work has been continous since that time. The number of experimenters in one single year has been slightly over five thousand.

In the autumn of 1922 material was sent out for seven, and in the spring of 1923 for thirty-five, making in all forty-two distinct and separate experiments within the past year. Definite instructions for carrying on the work were furnished with each of the forty-two experiments. Information regarding the two sets of experiments as sent out to prospective experimenters, to the agricultural journals, and to the newspapers of Ontario was in the following form:

Winter Crops, 1922-1923

Material for any one of the seven experiments here mentioned will be sent free to any Ontario farmer applying for it, if he will conduct an experiment with great care and report the results after harvest next year. The seed will be sent out in the order in which applications are received as long as the supply lasts.

1.—Testing three leading varieties of Winter Wheat ..... 3 plots
2.—Testing one leading variety of Winter Rye and one of Winter Wheat ..... 2 "
3.—Testing spring applications of five fertilizers with Winter Wheat ..... 6 "
4.—Testing Autumn and Spring Applications of Nitrate of Soda and Common Salt with Winter Wheat ..... 5 "
5.—Testing Winter Emmer and Winter Barley ..... 2 "
6.—Testing Hairy Vetches and Winter Rye as Fodder Crops ..... 2 "
7.—Testing mixtures of Hairy Vetches and Winter Rye for Seed Production ..... 3 "

The exact size of each plot is to be one rod wide by two rods long. The material for experiments Nos. 1, 2, 3, 5, 6 and 7 will be forwarded by mail, and for the other one by express. Each person wishing to conduct one of these experiments should apply as soon as possible, mentioning which test he desires, and the material, with instructions for testing and the blank form on which to report, will be furnished free of cost until the supply of experimental material is exhausted.

Spring Crops, 1923

The members of the Ontario Agricultural and Experimental Union are pleased to state that in 1923 they are prepared to distribute into every township in Ontario, material for experiments with fodder crops, roots, grains, grasses, clovers and fertilizers. Fully 2,600 varieties of farm crops have been tested in the experimental department of the Ontario Agricultural College, Guelph, for at least five years. These consist of nearly all the Canadian sorts, and several hundred new varieties and new strains, a few of which have done exceedingly well in the carefully conducted experiments at the College, and will be used for the co-operative experiments throughout Ontario in 1923.

Each person in Ontario who wishes to join in the work may choose any one of the experiments for 1923, fill out the accompanying form of application, and return the same to the director of the co-operative experiments in field husbandry at as early a date as possible. The material will be furnished in the order in which the applications are received, until the supply is exhausted. A sheet containing the instructions for conducting the chosen experiment, and the blank form on which to report the results of the work, will be sent to each experimenter at the time the fertilizers or seeds are forwarded. All material will be furnished entirely free of charge to each applicant, and the produce of the plots will, of course, become the property of the person who conducts the experiment. In return, the committee on experiments desires to ask that each experimenter will sow all the plots belonging to the particular experiment which he has chosen for 1923, and that he will be very careful and accurate in his work, and forward to the director a complete report of the results obtained from the test, as soon as possible after the plots are harvested.

All seeds and fertilizers will be sent in good time for spring seeding, providing the applications are received at an early date. The supply of material being limited, those who apply first will be sure of obtaining the desired complement. Each applicant should make a second choice, for fear the first could not be granted. The experiment selected should be indicated by using its number as given in the left hand column in the list of experiments.

LIST OF EXPERIMENTS FOR 1923

Grain Crops	Plots
1—Testing three varieties of Oats	3
2—Testing O.A.C. No. 21 Barley and Emmer	2
3—Testing two varieties of Hulless Barley	2
4—Testing two varieties of Spring Wheat	2
5—Testing two varieties of Buckwheat	2
6—Testing three varieties of Field Peas	3
7—Testing two varieties of Spring Rye	2
8—Testing three varieties of Soy, Soja, or Japanese Beans	3
9—Testing eight varieties of Flint and Dent Husking Corn	8
Root Crops	
10—Testing three varieites of Mangels	3
11—Testing two varieties of Sugar Mangels	2
12—Testing three varieties of Swedish Turnips	3
13—Testing two varieties of Fall Turnips	2
14—Testing two varieties of Carrots	2

Forage, Fodder, Silage and Hay Crops

	Plots
15—Testing the planting of Corn at six distances in the row	6
16—Testing Sudan Grass and two varieties of Millet	3
17—Testing Sunflower, Sorghum and Corn for fodder	3
18—Testing Grass Peas and two varieties of Vetches	3
19—Testing Rape, Kale and Field Cabbage	3
20—Testing two varieties of Biennial White Sweet Clover	2
21—Testing two varieties of Alfalfa	2
22—Testing unhulled, hulled and scarified Sweet Clover Seed	3

Culinary Crops

23—Testing three varieties of Field Beans	3
24—Testing Sweet Corn for table use from different dates of planting	3

Fertilizer Experiments

25—Testing Low and High Grade Fertilizers and Manure with Oats and Red Clover	4
26—Testing different quantities of Lime with Sweet Clover	4

Miscellaneous Experiments

27—Testing Northern and Southern Grown Seed Potatoes	2
28—Testing two varieties of Potatoes	2
29—Testing three grain mixtures for Grain production	3
30—Testing three grain mixtures for Fodder production	3
31—Testing Hubam Sweet Clover at the rate of one pound and four pounds per acre in rows for seed production	2
32—Testing Hubam Sweet Clover when cut at three different stages of growth for Green Fodder and for Hay	3
33—Testing two varieties of Hubam Sweet Clover for Green Fodder and for Hay	2
34—Testing Hubam, Biennial White, and Biennial Yellow Sweet Clover for Green Fodder and for Hay	3
35—Testing Hubam, Biennial White, and Biennial Yellow Sweet Clover by sowing alone in late June or early July for cover crops	3

The size of each plot is to be two rods long by one rod wide, except for numbers 27 and 28 which is to be one rod square. For experiment number 26, the Experimental Union will furnish the Sweet Clover seed and the experimenter the lime as required.

If you wish to conduct one of the 35 co-operative experiments in field husbandry named on the accompanying circular, kindly fill out this blank form and return it as soon as possible.

The distribution will be confined to the choice varieties included in the various experiments. In filling out the blank form, therefore, it is neither necessary nor advisable to mention any particular variety or varieties.

All materials for experiments with instruction sheets enclosed will be sent by parcel post. Address all communications to,

C. A. Zavitz, Agricultural College, Guelph, Ont.

Weather Conditions

The total amount of precipitation, for each of the six growing months from April to September for 1923 and for the average of the past twenty-four years as determined in the department of physics at the Ontario Agricultural College, is given as follows:

Period	April	May	June	July	Aug.	Sept.	Total
	inches	inches	inches	inches	inches	inches	inches
1923 (1 year)	2.86	4.00	4.46	3.11	4.86	3.34	22.63
1900-1923 (24 years)	2.63	2.98	2.88	3.52	3.00	2.55	17.57

It will be seen that the total amount of rainfall in each of the months of May, June and August was comparatively large, that for April and September somewhat above the average of the twenty-four year period, and that for July slightly less than the average for this total period. The total amount of rainfall for the six months here mentioned in 1923 was 5.06 inches more than the average of the past twenty-four years. This increased amount was largely made up by the rainfalls in the months of May and June.

The August bulletin of the Statistics and Publications Branch of the Ontario Department of Agriculture reports that the rainfall throughout Ontario for the five months from March to July inclusive was 12.94 inches, or .10 of an inch below the normal of the average for the last forty-one years. March, April, May and June were in excess, while July was below its respective average.

Results of Co-operative Experiments

The co-operative experimental work with farm crops is entirely voluntary on the part of the experimenters. The tests were conducted by the farmers themselves through the co-operation and guidance of the field husbandry committee of the Experimental Union. Voluntary co-operation has been the secret and has made the success of this work.

The reports of the co-operative experiments for 1923 which were received at the College were submitted to the same critical examination as in former years. For the summary report which is here presented, only those individual reports which showed carefulness and reliability in all the essential details of the work were used. We have now many experienced experimenters engaged in this work. These men combine a large amount of practical experience on the farm, a good education and a substantial training in experimental work, as they have conducted successful tests on their own farms in each of a number of years. Many of the reports not included in the summary, owing to a slight change in the size of the plots or to some unavoidable accident, have exerted a valuable individual influence in furnishing an object lesson to the experimenters and to others and in supplying good, pure seed of better varieties than were grown on the farm previously.

Grain Crops

The following table gives the summary results in tabulated form showing yields per acre of the varieties of grain crops tested through the medium of the Experimental Union throughout Ontario in 1923:

Experiments	Varieties	Straw (tons)	Grain (bus.)	Grain (lbs.)
Oats (31 tests)	A Bald selection of O.A.C. No. 72	1.73	47.94	1630
	A Bearded selection of O.A.C. No. 72	1.48	42.26	1437
	O.A.C. No. 3	1.08	37.61	1279
	Liberty Hulless	1.33	30.69	1043
Six-rowed Barley and Emmer (7 tests)	O.A.C. No. 21	1.46	33.33	1600
	Common Emmer	1.57	28.22	1354
Hulless Barley (7 tests)	Black Hulless	1.21	19.15	1149
	Guy Mayle	1.09	18.00	1080
Spring Wheat (2 tests)	Marquis	1.33	22.67	1360
	Wild Goose	1.94	20.67	1240

Winter Wheat (12 tests)	O.A.C. No. 104	1.50	23.28	1397
	Improved Dawson's Golden Chaff	1.35	22.95	1377
	Kharkov	1.29	19.28	1157
Winter Rye and Winter Wheat (4 tests)	Winter Rye	1.41	26.79	1500
	Winter Wheat	.77	20.51	1230
Field Peas (8 tests)	O.A.C. No. 181	2.73	21.17	1270
	Early Britain	2.60	19.04	1142
	Potter	2.45	18.84	1130
Field Beans (8 tests)	Pearce's Improved Tree	.99	19.55	1173
	Michigan No. 630425	.97	16.37	982
	American Wonder	.82	16.15	969
Soy Beans (4 tests)	O.A.C. No. 211	1.12	18.17	1090
	O.A.C. No. 111	1.18	17.00	1020
	Brown	.84	14.67	880

In the first column of figures, the yield of straw per acre represents the total crop less the amount of grain and therefore includes the chaff with the straw. In the second column, the yield of grain per acre is given in bushels, and, in the third column, in pounds per acre. This makes possible a comparison between the different classes of grains where there is a difference in the standard weights per measured bushel.

Varieties of Oats. Four varieties of oats were used in the co-operative experiments in 1923. The O.A.C. No. 72 (which in the table above is listed as a bearded selection of O.A.C. No. 72) and the O.A.C. No. 3 have been used in each of the past eleven years, and the Liberty oat, a new hulless variety originated by Dr. C. E. Saunders, Central Experimental Farm, Ottawa, was used in the co-operative experiments for the third time. The Bald selection of O.A.C. No. 72 was included in the co-operative experiments in 1923 for the first time. The tabulated results in 1923 show that the Bald selection of the O.A.C. No. 72 oats surpassed the O.A.C. No. 72 by 5.7, the O.A.C. No. 3 by 10.3, and the Liberty hulless by 17.3 bushels of grain per acre. The Bald selection of the O.A.C. No. 72 produced a larger yield of straw per acre than any of the other varieties. In the average of five years' results, the Bald selection of the O.A.C. No. 72 in the field plot tests at the college has outyielded the O.A.C. No. 72 oat by 4.3 bushels of grain per acre and has proven somewhat stronger in the straw. In the average results of the past three years, the O.A.C. No. 72 surpassed the Liberty variety by 381 pounds per acre. The Liberty hulless oat has given better results than any other variety of hulless oat which we have tested at the college.

The following table gives the average yield per acre of all the co-operative tests made with the O.A.C. No. 72 and the O.A.C. No. 3 varieties of oats in each of the past eleven years, and also the average results of 698 successfully conducted tests made throughout the province for the eleven-year period:

Varieties	Average Yield of Oats per Acre (Bushels by Weight)											
	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	Average 11 years
O.A.C. No. 72	52.1	52.4	52.9	47.0	45.9	54.2	41.5	50.5	41.0	47.7	42.3	48.0
O.A.C. No. 3	43.3	49.0	49.1	45.6	41.2	46.1	38.9	41.6	39.2	42.7	37.6	43.1

In every single year of the eleven in which this experiment was conducted, the O.A.C. No. 72 variety surpassed the O.A.C. No. 3 variety of oats in yield of grain per acre. The average increase per annum for the whole period being 4.9 bushels per acre in favour of the O.A.C. No.72. The O.A.C. No. 3 variety is about ten days earlier in maturing than the O.A.C. No. 72 or the Banner. There is no variety of oats grown as a field crop in Ontario which is thinner in the hull than the O.A.C. No. 3.

The two most extensively grown varieties of oats in Ontario at the present time are the O.A.C. No. 72 and the Banner. The O.A.C. No. 3 and the Daubeney are the two most widely grown of the early maturing varieties.

The following table gives the average of seventeen years' results of three varieties of oats grown in the experimental grounds of the Ontario Agricultural College:

Varieties	Days to Mature	Percentage of Hull	Yield per Acre	
			Straw (tons)	Grain (bus.)
O.A.C. No. 72	109	28.5	2.16	82.23
Banner	104	30.3	2.10	73.74
Daubeney	102	25.1	1.87	71.37

In the last seven years there were in all 990 first prizes awarded by judges to the winners in the field crop competitions over Ontario. Of this number, the O.A.C. No. 72 received 521; the Banner, 220; and all other varieties combined, 249.

In the competitions of threshed grain at the Canadian National Exhibition, Toronto; at the Central Canada Exhibition, Ottawa; at the Provincial Winter Fair, Guelph; and at the Ottawa Winter Fair, the O.A.C. No. 72 received seventy-two and the Banner forty-one prizes in the last four years, the former surpassing the latter in awards from fifty to one hundred per cent. at each of these exhibitions.

The reports of the Combined Standing Field Crop and Threshed Grain Competitions in Ontario show that the winners of the first prizes averaged several points lower in Banner than in O.A.C. No. 72. This applied to both the field score and the bin score in 1921 and in 1922, the only two years of this competition. The average bin score was 85.0 for the Banner and 93.8 for the O.A.C. No. 72 in 1922.

O.A.C. No. 21 Barley and Common Emmer. The O.A.C. No. 21 barley is the chief variety of barley grown in the Province of Ontario, and is now grown to the exclusion of practically all other varieties. This variety is also a prominent one in Western Canada. Common Emmer, which has been widely advertised, has also proven itself to be a large yielder of grain. In experiments at the College, Common Emmer has shown itself to be a strong competitor of the largest yielding varieties of barley and of oats in grain production. According to the reports of the Statistics Branch of the Ontario Department of Agriculture the barley crop of Ontario has made an actual increase in yield per acre for the last twenty-one years, in comparison with the two previous decades, of 17.4 per cent. or an average yield per acre per annum of four and one-half bushels.

The O.A.C. No. 21 barley surpassed the Common Emmer by a yield of 246 pounds of grain per acre in 1923 in the average of seven carefully conducted co-operative experiments. As these two grains have been used in the co-operative experiments in each of the last eleven years, during which time there were 136 successfully conducted tests, it was found that the average yield of grain per acre was 1,614 pounds for the O.A.C. No. 21 barley and 1,358 pounds for the Common Emmer. The O.A.C. No. 21 barley, therefore, outyielded Common Emmer in the average of the whole eleven year-period by 256 pounds per acre.

Hulless Barley. In the average of seven successfully conducted co-operative experiments throughout Ontario, the Black variety of hulless barley surpassed the Guy Mayle variety in yield of grain per acre by 1.2 bushels in 1923. In the average of twenty years, during which time these two varieties have been included in the co-operative experiments, the Guy Mayle surpassed the Black Hulless variety by less than one-half bushel per acre. While there is not much difference between these two varieties in yield of grain per acre, the Guy Mayle variety is the more popular of the two with the experimenters. It is a little stiffer in the straw than the Black Hulless variety. As a class, hulless barleys do not yield as well per acre as the O.A.C. No. 21 or Mandscheuri varieties of six-rowed barleys and they are also somewhat weaker in the straw.

Spring Wheat. The Marquis variety of spring wheat surpassed the Wild Goose in yield of grain per acre in 1923 by 2 bushels. In the last eleven years, during which time this co-operative experiment has included these two varieties, successfully conducted tests have been made on 133 Ontario farms. In the average of this eleven-year period, the Wild Goose has given a yield of 20.4 and the Marquis of 19.2 bushels per acre. The Marquis variety in Ontario and also in Western Canada has proven itself to be one of the best of the flour spring wheats. The Wild Goose is one of the best varieties of the macaroni species of wheat grown in Ontario.

Winter Wheat. Twelve successfully conducted co-operative tests were made with three varieties of winter wheat in Ontario in 1923. The O.A.C. No. 104 variety outyielded the Improved Dawson's Golden Chaff in 1923 by about one-third of a bushel per acre and the Kharkov variety by 4 bushels per acre. In the average of seven years' tests in which there were 140 successfully conducted experiments, the O.A.C. No. 104 yielded 27.1; the Improved Dawson's Golden Chaff, 26.0; and the Kharkov, 22.6 bushels per acre.

The O.A.C. No. 104 was originated at the Ontario Agricultural College by crossing the Dawson's Golden Chaff and the Bulgarian varieties. It is a white wheat possessing white chaff similar to the Bulgarian and has a beardless head similar to the Dawson's Golden Chaff. In the field plot experiments at the College and in the co-operative experiments conducted throughout Ontario, it has proven to be a better yielder and less subject to winter killing than the Dawson's Golden Chaff. It is slightly taller in the straw, a little hardier, and less subject to injury from the Hessian fly. The O.A.C. No. 104 is recognized by the Ontario Association of Fairs and Exhibitions as one of the three standard varieties of winter wheat in this Province, the other two being the Dawson's Golden Chaff and the Imperial Amber.

Winter Rye and Winter Wheat. In each of the last eight years, one of the best varieties of winter rye and one of the best varieties of winter wheat have been compared with each other in the co-operative experiments. In 1920, 1921, 1922 and 1923, the Rosen rye and the O.A.C. No. 104 winter wheat were the crops compared, and in the years 1915, 1916, 1918 and 1919 the Petkus rye and the Imperial Amber winter wheat were the varieties included in this

test. In the average results in pounds of grain per acre it was found that the winter rye gave a greater yield than the winter wheat by 270 pounds in 1923, and by 337 pounds per acre in the average of eight years. Without a single exception, the winter rye surpassed the winter wheat each year in yield of grain. In the experiments at the College conducted over a long period of time, varieties of winter rye have proven to be more hardy than the very hardiest of the winter wheat varieties.

Field Peas. For eight years in succession the same two varieties of peas have been used in the co-operative experiments. The average for the eight-year period shows an annual yield of grain per acre of 23.7 bushels for the Early Britain and of 23.6 bushels for the Potter. In 1921, 1922 and 1923, the O.A.C. No. 181 was included in the co-operative tests. The tabulated results show that this new variety surpassed the Early Britain by 2.1 bushels per acre in 1923 and in the average of the three years by 2.4 bushels per acre.

The O.A.C. No. 181 variety of field peas was originated at Guelph by crossing the Prussian Blue and the White Wonder varieties. It is a small, smooth, white pea, of good quality and appearance. Of all the leading varieties of field peas tested at the College, the O.A.C. No. 181 has given the highest average yield of grain per acre.

Field Beans. Three varieties of field beans were included in the co-operative tests in 1923. The Pearce's Improved Tree bean gave an average yield of 3.2 bushels per acre more than the Michigan No. 630425. The Michigan No. 630425 outyielded the American Wonder variety by less than one-quarter of a bushel of grain per acre.

In the average of the last four years, during which time there were 41 successfully conducted tests, the Pearce's Improved Tree bean produced an average yield of 26.0; the Michigan No. 630425, 23.2; and the American Wonder, 22.4 bushels of grain per acre. The Pearce's Improved Tree bean is a larger strawed and later maturing variety than the Pea bean. In those localities where the season is long enough to mature the seed, it is a large yielder of beans of excellent quality.

Soy Beans. In the average of four successfully conducted co-operative experiments in 1923, the O.A.C. No. 211 variety of soy beans produced 1.2 bushels more than the O.A.C. No. 111, and 3.5 bushels more than the Brown soy bean.

In the experimental plots at the College in which eleven varieties of soy beans were under test for a three-year period, the O.A.C. No. 211 was first in yield, producing 23.8 bushels per acre. In the same experiment, the O.A.C. No. 111 produced 23.3 and the Brown 18.7 bushels per acre. Besides proving itself to be a large yielder of grain per acre, the O.A.C. No. 211 has also proven to be one of the largest yielders of green fodder.

Grains Grown in Combination for Grain Production

A large number of experiments have been conducted at the Ontario Agricultural College during the last twenty-four years in growing grains in different combinations for grain production. In 1923 the only cereal grains which occupied a greater area of land than mixed grains in Ontario were oats and winter wheat. It is quite evident, then, that growing grains in mixtures occupies an important place in crop production in this Province.

For six years in succession, an experiment was conducted at the Ontario Agricultural College by growing oats, barley, spring wheat and peas separately,

and in different combinations for the production of grain. There were six mixtures having two classes of grain; four, having three classes; and one, having four classes of grain in combination. This made in all eleven mixtures besides the four grains grown separately, forming a total of fifteen plots. The experiment was conducted in duplicate each year for six years, making a total of 180 plots. Of all the mixtures used, barley and oats gave the highest returns, this combination producing 193 pounds of threshed grain per acre more than the highest yielding grain grown alone.

Many farmers have been under the impression that if a small quantity of goose wheat, rye, peas or flax was added to a mixture of oats and barley, they would receive in the resultant crop, not only as large a yield of oats and barley as if these two grains had been grown without any additional seed, but that they also would obtain a fair yield of goose wheat, rye, peas or of flax in addition. The results of many experiments at the College have shown that this has not been the case, and that so far no additional grain of any kind has been used with a standard mixture of barley and oats which has not caused an actual reduction in the total yield of grain per acre.

In the spring of 1918, a co-operative experiment was started in order to ascertain whether an addition of one-half bushel of Goose wheat or one-half bushel of Golden Vine peas to a mixture of one bushel of oats and one bushel of barley would be of any advantage in producing a larger yield throughout Ontario. No results of successfully conducted co-operative experiments were obtained in that year. The following table gives the average results of similar experiments, as herein described, conducted over Ontario in each of the past five years:

Mixtures	Yield of Straw per Acre (tons)						Yield of Grain per Acre (pounds)					
	1919	1920	1921	1922	1923	Ave.	1919	1920	1921	1922	1923	Ave.
Oats 1 bus., Barley 1 bus.	1.24	1.70	1.35	2.09	2.64	1.80	1,473	2,240	1,223	3,446	2,140	2,104
Oats 1 bus., Barley 1 bus., Golden Vine Peas ½ bus.	1.16	1.77	1.36	2.42	2.66	1.87	1,310	2,148	1,062	3,563	2,010	2,019
Oats 1 bus., Barley 1 bus., Goose Wheat ½ bus.	1.21	1.71	1.35	2.27	2.84	1.88	1,398	1,993	1,121	3,211	1,840	1,913

The tabulated results show that the oats and barley grown in combination without any additional grain, produced a greater yield of grain per acre than when either Golden Vine peas or Goose wheat was added to this mixture. These results have proven to be quite consistent with those obtained through the College with more complicated experiments extending over a much longer period of time. When a high-yielding variety of oats and a high-yielding variety of barley are sown at the rate of one bushel (34 pounds) of the former and one bushel (48 pounds) of the latter, or a total of 82 pounds of the mixture per acre, a high yield may be expected. It is also necessary, of course, that the varieties reach maturity about the same time. A mixture of O.A.C. No. 21

barley (48 pounds per acre) and O.A.C. No. 3 oats (34 pounds per acre) is one that so far has not been surpassed in yield of grain in Ontario.

Varieties of Corn for Husking

Two separate corn experiments were used in the co-operative tests previous to 1916. Each set consisted of a small number of varieties. One set was grown for grain production and the other was studied from the standpoint of fodder. In 1916, a co-operative experiment was started in the testing of the seven varieties of corn recommended for growing in Ontario by the Ontario Corn Growers' Association. This experiment has now been conducted for eight years, and includes in all 47 separate tests of the whole crop and 32 of the shelled grain. The following table gives the average yield of total crop and of grain per acre of each of the seven varieties of corn tested in Ontario in 1923 and in the average of the past eight years:

Varieties	Average Yield per Acre			
	Whole Crop (tons)		Grain (bushels)	
	1923	Average 8 years 47 tests	1923	Average 8 years 32 tests
Golden Glow	6.78	9.51	34.53	65.62
White Cap Yellow Dent	7.02	9.43	40.36	61.35
Wisconsin No. 7	8.43	10.63	43.33	60.63
Bailey	7.38	9.50	34.29	59.49
Salzer's North Dakota	7.58	9.09	40.96	56.44
Longfellow	6.83	8.99	30.71	54.78
Compton's Early	8.46	8.52	43.81	52.45

The Golden Glow variety gave the highest yield of grain per acre in five out of eight years. This variety has not only proven to be a large yielder of grain per acre but ranks second in yield of whole crop in the average of the eight-year period being only surpassed in this respect by the Wisconsin No. 7 variety. The four varieties producing the highest average yields of grain per acre are Dents, and the three varieties which have given the lowest yields are Flints. It will be observed that in 1923 the yields of grain per acre for the seven varieties tested was considerably below the average of the eight-year period.

Field Roots and Fodder Crops

The co-operative experiments were conducted in 1923 with mangels; sugar mangels or stock-feeding sugar beets; swede turnips; fall turnips; field carrots; grass peas, hairy vetches and soy beans; sunflowers, sorghum and field corn; and millet. There were in all seventeen good reports of successfully conducted tests with the above-mentioned crops.

The average results of successfully conducted tests with field roots and fodder crops are presented in the following table:

Experiments	Varieties	Yield per Acre (tons)
Mangels	O.A.C. No. 2 Strain Yellow Leviathan	33.35
	Sutton's Mammoth Long Red	33.22
	Keith's Prize Taker Yellow Globe	28.40
Sugar Mangels	Bruce's Giant White Feeding	34.84
	Rennie's Tankard Cream	33.60
Swede Turnips	Good Luck	33.95
	Ditmar's Bronze Top	30.84
	Garton's Superlative	30.65
Field Carrots	Rennie's Mammoth Short White	26.43
	Bruce's Mammoth Intermediate Short White	23.59
Grass Peas, Hairy Vetches and Soy Beans	Soy Beans	3.60
	Grass Peas	2.60
	Hairy Vetches	2.40
Sunflowers, Sorghum and Field Corn	Sunflowers	12.32
	Corn	8.20
	Sorghum	6.20
Millets and Sudan Grass	Sudan Grass	10.80
	Japanese Panicle Millet	9.60
	O.A.C. No. 71 Millet	7.60

Varieties of Mangels. In the average of four successfully conducted co-operative tests in 1923, the O.A.C. strain of Yellow Leviathan surpassed the Sutton's Mammoth Long Red by a little more than one-tenth of a ton and the Keith's Prize-taker Yellow Globe by almost 5 tons per acre. In the average of thirty-three tests conducted in the last five years, these varieties yielded as follows: Sutton's Mammoth Long Red, 31.8; O.A.C. strain of Yellow Leviathan 31.6; and Keith's Prize-taker Yellow Globe 29.1 tons per acre. The Yellow Leviathan and the Sutton's Mammoth Long Red varieties of mangels have been included in the co-operative tests for the last twenty years, during which time there were 154 successfully conducted experiments. In the average of this period, the Yellow Leviathan variety surpassed the Sutton's Mammoth Long Red by one-half ton per acre per annum.

Sugar Mangels. The names, sugar mangels and sugar beets for feeding purposes, refer to the same class of roots which are intermediate between mangels and the true sugar beets. Mangels usually have about five per cent., sugar mangels rarely exceed ten per cent., and sugar beets have from fourteen to twenty per cent. of sugar. Sugar mangels have a larger per cent. of the root growing above the ground than sugar beets, and are more easily harvested. In the average of three successfully conducted co-operative experiments in 1923, the Bruce's Giant White Feeding surpassed the Rennie's Tankard Cream by 1.2 tons per acre. These two varieties have been included in the co-operative experiments for ten years, during which time there have been 52 successfully conducted tests. The results for this period show that the Bruce's Giant White Feeding surpassed the Rennie's Tankard Cream by an average of eight-tenths of a ton per acre per annum.

Swede Turnips. In the average of the successfully conducted co-operative experiments in 1923, the Good Luck yielded 34.0, Ditmar's Bronze Top 30.8, and Garton's Superlative variety, 30.7 tons of roots per acre. The Good Luck and Garton's Superlative varieties have been included in the co-operative tests for the last three years, during which time there have been 10 successfully conducted experiments. In the average of this period the Good Luck surpassed the Garton's Superlative variety by almost 2 tons per acre per annum.

Field Carrots. The Rennie's Mammoth Short White surpassed the Bruce's Mammoth Intermediate Short White variety in 1923 by 2.8 tons per acre and in the average of the last five years, during which time there were 26 successfully conducted tests, by seven tenths of a ton per acre. The intermediate white field carrots, offered by seedsmen under different names, usually resemble each other very closely in appearance and there appears to be more difference in the quality of the seed than in the so-called varieties.

Grass Peas, Hairy Vetches and Soy Beans. In the average results for 1923, the Habara soy beans produced a yield of 3.6, grass peas 2.6, and hairy vetches 2.4 tons per acre. In the average of the last six years in which there were 13 successfully conducted tests, the hairy vetches gave an average of 8.9 tons and the grass peas of 7.9 tons per acre.

Sunflowers, Sorghum and Field Corn. Mammoth Russian sunflowers, Early Amber Sugar sorghum and White Cap Yellow Dent corn were distributed for co-operative experiments in 1921, 1922 and 1923. In 1923 the Mammoth Russian sunflower produced 12.3, the White Cap Yellow Dent corn 8.2, and the Early Amber Sugar Sorghum 6.2 tons per acre. In the average of the three years, during which time there were 8 successfully conducted reports, the Mammoth Russian sunflower produced a yield of 16.0, the White Cap Yellow Dent corn 11.4, and the Early Amber Sugar sorghum 7.7 tons per acre.

Millets and Sudan Grass. In 1923 Sudan Grass surpassed the Japanese Panicle millet by 1.2 tons and the O.A.C. No. 71 millet by 3.2 tons per acre. These three varieties have now been under test for four years and in the average of this period, during which time there were 7 successful reports, the Japanese Panicle millet produced 8.4 tons, the O.A.C. No. 71 millet 7.9 tons, and Sudan Grass 6.6 tons of green fodder per acre.

Dates of Planting Sweet Corn

More than fifty varieties of sweet corn have been tested at the College, and a few of the best of these have been included in the co-operative tests. The varieties which have been used most extensively in these experiments have been Golden Bantam, Stowell's Evergreen, White Cory and Malakhoff. In each of the years in which it was tested, the Golden Bantam variety was reported by the experimenters as being the most desirable to grow for home use. In each of six years, previous to 1920, only two varieties were selected for distribution, namely, the Golden Bantam of the early and the Stowell's Evergreen of the late. The Golden Bantam proved more popular with the experimenters, and produced a greater number of ears of corn of better quality than the Stowell's Evergreen. The former variety was about ten days earlier than the latter. The Golden Bantam variety is now very widely grown throughout Ontario. In each of the past four years a co-operative experiment has been conducted in planting the Golden Bantam sweet corn on three different dates. The seed was supplied by the College, and each experimenter was advised to plant the corn on three different dates, allowing two weeks to remain between each two dates of planting.

The following table gives the date of planting, the time at which ears were ready for table use and the number of good ears from fifty hills for each date of planting in 1923 and for the average of the past four years:

Planted		Ears ready for use		Number of Good Ears from 50 hills	
1923	Average 4 years	1923	Average 4 years	1923	Average 4 years
May 17th	May 17th	Aug. 12th	Aug. 11th	96	162
June 2nd	May 31st	Aug. 25th	Aug. 23rd	104	157
June 16th	June 13th	Sept. 11th	Sept. 4th	93	143

It will be noted that the date on which the experimenters started to plant varied in time only three days in the four years. The date on which corn, from the first planting, was ready for table use in the average of the four years was August 11th. The second planting was ready for table use on August 23rd, and the third planting on September 4th. The largest number of ears were obtained from the first planting and the smallest number from the last planting. The Golden Bantam variety may be planted at a number of different dates, and the season in which it can be used for table purposes extended even beyond the limits indicated in this experiment.

Varieties of Potatoes

The yield of potatoes per acre is influenced by many causes, some of these being variety, season, amount of seed planted, fertility of the soil, prevalence of disease, etc. The variety factor not only influences the yield and quality of the potatoes grown, but also has a considerable influence in regulating the size and uniformity of the potatoes put on the market. One great weakness in potato growing in Ontario has been the presence of too many different varieties. The number, however, is gradually decreasing, and in the last few years particular emphasis has been placed on the Irish Cobbler of the early and the Green Mountain and the Rural New Yorker of the late varieties. For co-operative tests only two varieties of potatoes, namely, the Irish Cobbler and the Green Mountain, have been distributed since 1918. These two varieties have now been included in the co-operative tests for the last six years. In 1923 successfully conducted reports were received from 132 experimenters. The following table gives the average results of this experiment in each of the past six years and for the whole period:

Varieties	Percentage Rotten Potatoes		Percentage Small Potatoes		Average Yield of Total Crop per Acre (bush.)						
	1923	Ave.	1923	Ave.	1918	1919	1920	1921	1922	1923	Ave.
Irish Cobbler.....	.188	.4	10.4	12.5	134.3	111.1	271.5	153.4	171.9	185.8	171.3
Green Mountain..	.231	.8	8.5	10.4	129.5	132.5	301.5	176.1	193.0	231.0	193.9

In five of the six years in which this experiment was conducted, the Green Mountain surpassed the Irish Cobbler in yield per acre. This potato experiment has now been conducted on 737 farms in the Province of Ontario. Those who assisted in conducting these co-operative tests are situated in every county and every district in the Province. In the average results of the whole six-year period the Green Mountain surpassed the Irish Cobbler by 22.6 bushels per acre per annum. The seed potatoes used in this experiment each year were as free from disease and as true to type as it was possible to obtain.

Northern and Southern Grown Seed Potatoes

For a period of seven years, an experiment was conducted at the College in testing seed potatoes obtained from different sources. These sources were mainly from southern Ontario, northern Ontario and New Brunswick. Seed potatoes which were obtained about 140 miles north of Guelph in the Muskoka District near the Muskoka Lakes produced higher yields per acre than those obtained from southern Ontario and slightly higher than those obtained from New Brunswick. More recently potatoes which have been obtained from Rainy River, Algoma and Thunder Bay districts have given good results for seed purposes. Whether the good returns are caused by the immaturity of the seed, greater freedom from disease of the northern grown potatoes, or by other selection factors involved is now receiving special attention.

In 1923, two varieties of potatoes were obtained from southern Ontario and the same two varieties from northern Ontario, and these were carefully tested in co-operative experiments throughout the Province. There were in all fifty-six reports received of successfully conducted experiments. The following table gives the average results of this experiment in each of six years and also for the average of the six-year period, which includes in all 348 separate tests:

District	Average Yield of Potatoes per Acre (bus.)						
	1918	1919	1920	1921	1922	1923	Average
Northern Ontario	142.8	134.6	292.6	168.1	187.2	195.3	186.8
Southern Ontario	123.9	128.5	279.8	163.9	183.2	187.7	177.8

In each of the past six years, the northern grown seed potatoes produced a higher yield per acre than the seed which was obtained in southern Ontario. The average results for the six years' tests show that the northern grown seed produced 9.0 bushels per acre per annum more than that obtained from southern grown seed. The seed obtained from each of the two sources was the best procurable.

Fertilizers and Manures With Farm Crops

For the past thirty-seven years, co-operative experiments with manures and fertilizers with farm crops have been conducted throughout Ontario. For the first five years, however, the investigations were somewhat of a preliminary nature. Since 1889 experiments have been conducted under a general scheme and much valuable information has been secured. The results of experiments

conducted through the medium of the Experimental Union in past years may be secured in booklet form by writing to the Experimental Union Secretary, Agricultural College, Guelph.

In 1923 co-operative experiments were conducted with manures and fertilizers on winter wheat and on oats. The co-operative tests with manures and fertilizers with winter wheat belong to a series of tests started many years ago, and which include not only winter wheat but also oats, fodder corn, mangels, swede turnips and potatoes. In one set of tests, the application of manures and fertilizers with winter wheat was made in the autumn, and in another set of tests they were made in the spring. The co-operative work in the past year has been the application of manures and fertilizers in the spring to the winter wheat crop, and the use of low and high grade fertilizers and barnyard manure with oats and clover.

Kind of Fertilizer used	Fertilizer per Acre		Average Yield per Acre							
			Oats	Fodder Corn		Mangels	Swede turnips	Potatoes	Winter Wheat	
				Total	Ears				Fertilizer applied	
									Autumn	Spring
	Exact Wt.	Approximate Cost before the war	5 yrs. 74 tests	8 yrs. 47 tests	8 yrs. 41 tests	5 yrs. 41 tests	5 yrs. 18 tests	5 yrs. 98 tests	8 yrs. 22 tests	4 yrs. 9 tests
	lbs.	$ c.	bus.	tons	tons	tons	tons	bus.	bus.	bus.
Nothing	.....	.....	38.9	8.2	2.7	20.6	19.6	129.2	18.9	19.1
Nitrate of Soda	160	4.80	46.3	9.4	3.1	26.5	22.5	153.4	22.7	23.9
Muriate of Potash	160	4.00	43.8	9.4	3.0	24.6	23.7	160.8	22.3	25.3
Superphosphate	320	3.92	43.6	9.0	3.1	24.2	24.7	156.8	22.4	25.5
Complete Fertilizer	213	4.24	48.7	9.4	3.2	25.4	25.0	166.3	24.1	25.2
Potato Fertilizer	320	5.52	.....	.....	.....	.....	.....	167.5	.....	.....
Royal Canadian	320	5.60	.....	.....	.....	.....	.....	164.5	.....	.....
Cow Manure	40,000 (20 T.)	6.00	.....	.....	.....	.....	26.9	174.7	26.3	24.2

For the co-operative experiments the fertilizers and seeds have been sent from the College to experimenters each year. In all instances in the experiment the nitrate of soda and the muriate of potash were applied at the rate of 160 pounds per acre, and the superphosphate at the rate of 320 pounds per acre. A mixture of complete fertilizer was composed of one-third the amount of each of these fertilizers and was, therefore, applied at the rate of 213⅓ pounds per acre. As early in the spring as the land was dry enough, the fertilizers were made into a powdered condition by breaking any lumps which had been formed and were applied to their respective plots. The advice to the experimenters was to apply 500 pounds of average cow manure on one plot in each test, the application being equal to twenty tons per acre. The cow manure and the fertilizers were used as a top dressing. The preceding table gives, not only the average results of fertilizers and manure applied in the spring with winter wheat, but also fertilizers applied with a number of other farm crops.

The cost of each fertilizer given in the table represents approximately, under normal conditions previous to the war, the average cost per acre for the fertilizers as used in the co-operative experiments. The quotations were based

on the factory prices for quantities of about one ton of each fertilizer. The twenty tons of cow manure would be about twelve good sized loads per acre. and manure in Guelph has been selling at fifty cents per load, which is probably about the average for the Province. It is exceedingly difficult to place a price on farmyard manure, as in most cases it is not purchased, but is produced on the farm. Each person may place such value on the manure as he deems expedient and study the results according to his own circumstances. It should be stated that the freight on the fertilizers and the application of both the fertilizers and the manure are not taken into consideration in the foregoing statement, nor yet is there any account made of the influence of the different fertilizers and the manure upon the land after the first season, except in the later experiments. The results of fertilizers with farm crops over a series of years are studied in connection with the field experiments at the College.

Each experimenter was asked to conduct his fertilizer test on the average soil of his farm. The results here presented are, therefore, for the average soils of Ontario. On some farms the fertilizers paid much better than they did on others. Every farmer who uses fertilizer should know as much as possible about the requirements of his own particular farm. The results here presented speak in a general way regarding the use of these fertilizers under the varying conditions of the farm lands of the Province, and should furnish valuable suggestions.

In the spring of 1920, arrangements were made for testing a low grade and a high grade commercial fertilizer with oats and with spring wheat. These crops were also grown on unfertilized land in each instance in order to form a better basis of comparison. The fertilizers and the grain were distributed from the College for the various tests. In addition to this material, each experimenter was given the choice as to whether he would prefer seeding either class of grain with red clover or with the white flowering sweet clover. The object was not only to ascertain the influence of the fertilizers on the grain crop the first year, but also to secure information as to the influence of the fertilizers on the red clover and the sweet clover in the year following. In 1921, 1922 and 1923 this experiment was continued in a similar manner with oats but not with spring wheat. An application of 200 pounds per acre of high grade fertilizer (3–8–3) in the average of nine successfully conducted tests in the three years produced 3.3 bushels of oats per acre more than an application of a similar quantity of low grade fertilizer (1–8–1). An application of farmyard manure at the rate of ten tons per acre in the same experiment produced a yield of 3.6 bushels per acre more than the high grade fertilizer and 10.2 bushels more than where no fertilizer was applied.

RESULTS OF CO-OPERATIVE EXPERIMENTS IN AGRICULTURAL CHEMISTRY

S. Waterman, B.S.A., O.A.C., Guelph

During the past year under the direction of the Department of Chemistry, the experimental work in fertilizers, begun in 1922, was considerably extended, both in number of experiments and area covered. In 1922 a tentative experiment on potatoes was laid down on the farm of R. D. Nodwell, Hillsburg, Wellington County. This was productive of such good results that, besides continuing it, two more were placed in the same district on the farms of Messrs. Jas. McKitrick and Geo. Burt. These experiments were on potatoes. To de-

termine more fully the effect of the treatment similar experiments were placed in potato districts at Mount Brydges, Middlesex County, Hepworth, Bruce County, and on the Provincial Experimental Farm at Ridgetown. The type of experiment used is termed the "Triangle Experiment," not because it is laid down as a triangle, but because we use three constituents—nitrogen, phosphorus and potash—in different combinations, and a triangle is used for purposes of calculation of the varying amounts of these constituents. This type of experiment, in twenty per cent. variation, gives three plots having nitrogen, phosphorus and potash respectively, four having phosphorus and potash, four nitrogen and phosphorus, four nitrogen and potash, and six having all three. The plots are placed in rows in the field with check rows between.

In the second year all plots showing profits are divided again into ten per cent. variation, and the experiment laid down under as nearly similar conditions as possible. This was done on Mr. Nodwell's farm this year, and the results verify the conclusions stated last year. To quote from last year's report, "This gives, in our opinion, ample proof that if a farmer adopts methods of farming which permit of plowing into the land at every opportunity cover crops, preferably legumes, he can keep up, if not increase, the total nitrogen content of this soil and avoid the purchase of any nitrogenous fertilizers."

The complete figures on potatoes, too long for publication here, show without doubt that phosphorus in the form of acid phosphate can always be depended upon to give a fair increase in yield at a low cost per bushel increase. Supplemented by potash the yield invariably is increased. If nitrogen is lacking in the soil a fair percentage of nitrogen is essential, say three or four per cent.

For a field where legumes are plowed under in summer, and a cover crop of winter rye in the spring before planting, we unhesitatingly recommend an 0–12–4 fertilizer. Where manure is used and little or no soiling crop a 3–10–3 or 4–12–4 will prove profitable, all applied at the rate of 800 lbs. per acre. In case early potatoes are required, half the nitrogen present, if applied, should be in the form of nitrate of soda or some equally available form. Beside the potato experiments two of the same type were laid down with beans and sugar beets at the Experimental Farm, Ridgetown. The highest yield of beans was 33.26 bushels per acre produced by an 0–10–6 fertilizer, closely followed by 0–12–4, giving a yield of 30.69 bushels. The increase in yield paid for the fertilizer and left a profit. Keeping in mind the fact that approximately fifty per cent. of the fertilizer remains in the soil for the second crop, this treatment proves good business.

The sugar beet experiment was carried through to completion, the beets being analyzed for total sugar content and purity. The object is, of course, to increase the yield and at least maintain the sugar content if not increase it. Both of these objects have been attained, and the results are quite promising. Until further investigation has been carried on it is manifestly unwise to make any definite recommendations.

The yields of apples from the two orchards at Brantford and Woodstock have proven inconclusive. Owing to hail in 1922 no crop was harvested, and it is impossible to draw any conclusions from this year's results. It may be noted, however, that the acid phosphate stimulated growth of the cover crop and increased its nitrogen content. This, in our opinion, is its greatest value in an orchard, under normal orchard practices, thereby, in conjunction with a leguminous crop, to provide nitrogen for the trees. The application of nitrogen increased vegetative growth and leaf area. No effect can be attributed to the potash.

In case any further information is desired by anyone interested, this Department will be very glad to furnish it.

RESULTS OF CO-OPERATIVE EXPERIMENTS IN AGRICULTURE ENGINEERING

R. R. Graham, B.A., B.S.A., Assoc. Prof. of Physics, O.A.C., Guelph

One of the special lines of work of the Department of Physics for several years has been the modernization of the farm home. This work has involved the study and investigation of the following-named subjects: The farm water supply, pumps and water supply systems, hydraulic rams, plumbing and sewage disposal systems. In addition considerable extension work has been carried on and information given through letters, bulletins and blue-prints on these subjects to a host of enquirers, and wherever it has been feasible, personal advice and supervision of installations has been given. The only expense chargeable to the parties receiving personal assistance is the railway fare and any other incidental expenses. During the year just closing, all of these subjects have received further study, and the information gained and the further experience obtained in assisting parties to install these various improvements in their homes, renders the Department more efficient than ever in helping people to solve their particular problems and secure good installations.

In the following paragraphs an attempt is made to briefly set forth the work accomplished this last year along the various lines already mentioned.

The Farm Water Supply

This subject presents two problems, namely, securing an adequate supply and protecting the wells, chiefly the dug or shallow wells, from surface contamination. In regard to the supply, most of the Province of Ontario is well provided for, but generally speaking the wells on the farms of Ontario are not given the necessary attention and protection from contamination to adequately safeguard the health of those who use the water from them day by day. Our investigation certainly indicates that both of these problems need to be dealt with earnestly if country people are to enjoy plenty of pure water.

In certain parts of the Province there is considerable difficulty experienced in getting good wells. It is a common occurrence for old wells to fail and the owners are at a loss to know whether to deepen the old ones or sink new ones. In some cases we can advise them to good satisfaction, but frequently for lack of available information concerning the geology of the underlying strata we are unable to help them very much. In many cases the best we can do is to ask them to make a careful survey of the wells in their immediate vicinity in respect to depth necessary to go for water and the quality. We are more firmly convinced every year that the farmers ought to make provision by building a good cistern or two, for storing and using more rain water than they do. The average farm buildings have roof area enough to catch nearly all the water necessary for use in the house and stables if there were sufficient storage provided to carry over two or three months supply. As to the question of purity, it has been demonstrated to our own satisfaction that in nearly every case of contaminated well water the pollution gets in at the top either directly through the covering or else through the first few feet of the cribbing. On the whole, dug or shallow wells are very badly protected against this source of contamination. In an endeavour to overcome this menace, we have prepared a blue-print giving drawings and specifications for various ways of protecting the dug wells from surface contamination. Copies of these blue-prints may be secured from this Department free by dropping us a card.

The modern water supply systems are becoming very popular among farmers now, and many are putting them in their homes, also complete plumbing. We would like to emphasize the importance of securing an ample and pure supply of water, both hard and soft, before these conveniences are installed because considerably more water will be used once these are in use in the homes.

Farm Pumps and Water Supply Systems

All the typical kinds are still under investigation and study in our laboratories and in homes throughout the country. Most of these on the market are giving good satisfaction and we can recommend various kinds if we know the conditions under which they are to be installed. The manufacturers give every evidence of doing their best to meet in a highly satisfactory way the requirements for this line of goods among the farmers. Each year several manufacturers loan us their systems for demonstration purposes in our laboratory for farm conveniences. By this means we are enabled to keep up-to-date and at the same time the students and visitors to the College see for themselves what systems are on the market, how they operate, and while here get the notion of installing them in their own homes on their return.

The number of enquirers about water systems is mounting up very fast from year to year. To such we supply information by letter, bulletins, blueprints, sketches and approximate costs of installations.

The Hydraulic Ram

In parts of Ontario where springs are common, the hydraulic ram supplies the ideal means of pumping water into house and stables. There are a great many rams in operation on Ontario farms, but there should be many more. As people become aware of this machine, they readily adopt it. During the last year we have prepared a blue-print that supplies in a very clear way the manner of installing it to get best results. This information is available without charge to anyone wishing to install the ram. In some cases we personally supervise the installation, but this is not always necessary in view of the directions supplied. Bulletin 267, "Farm Water Supply and Sewage Disposal," deals with the subject of the hydraulic ram in a very exhaustive way. It is also free for the asking. During 1924 we propose to circularize the farmers in certain sections of the Province where springs are common with the view of getting this information across to them, and if they have favourable conditions for the operation of the ram to encourage them to install it. We have a No. 4, the common size, installed in our laboratory for demonstrating its manner of operation and advantage to students and visitors.

Plumbing and Disposal Systems

Once a farmer succeeds in installing a good water system, he soon puts in a complete bathroom equipment, kitchen sink and laundry tubs, and a lot of them are doing it to-day. A few years ago it was a very rare occurrence to get a letter from a farmer seeking information about equipment of a bathroom, but now nearly every day brings one or more letters of this nature. Our policy is to advise them to put in a pretty good outfit and get as good a mechanic as possible to do it, feeling that it will pay in the long run to have a job of this nature done right at the start. If installed properly it will have to be done only once in a life-time, and the up-keep will be very small indeed.

The Department is prepared to supply information about plumbing and plumbing fixtures, suitable layouts for bathrooms and kitchens, and blue-prints of typical installations. Special work has been done along this line during 1923, and more is planned for the ensuing year.

The Septic Tank

For the disposal of sewage in country and suburban homes there is nothing superior to the septic tank where the flushing closet is used. Only under the most favourable soil conditions will we recommend the cesspool. The cesspool is usually a menace to health. The problem of freezing in the septic tank and the tile bed is not a serious one, as our investigations the last two years show that it can be entirely eliminated by taking reasonable precautions in covering the tanks and the bed of tile with a few inches of straw or coarse manure. The covering is advisable in any case, as it keeps the contents of the chambers and tile warmer and thus favours the activities and consequently the efficiency of the sewage bacteria that digest the sewage.

We still advocate the two-chamber tank and the discharging syphon. This arrangement is giving good satisfaction wherever installed properly and the system given necessary attention year by year.

We have found out that the greatest trouble with septic tanks is clogging due to overloading the system. In other words the system is too small for the work it is required to do. In our bulletin and on our blue-prints we specify the dimensions for families of various sizes, and if these directions are followed and the tanks are cleaned out once in a while, there should be no trouble for many years.

Where the land is heavy clay we now advise underdraining the area for the absorption bed before the tile is laid, and it will help too to lay the tile of the bed on gravel, cinders or any coarse material available in order to improve the drainage from the tile. Keep the tile shallow, say 15 to 18 inches from the surface. Our blue-print is very complete on the matters of construction and installation of the system. It is also free.

During the winters of 1922 and 1923, an investigation of the matter of freezing in septic tanks was carried on and anyone wishing a report on this work may receive such by writing the Department of Physics. Space does not permit report of it here.

Research Work on Insulating Materials

In addition to the above mentioned lines of activity, valuable work was done on the testing of several non-conductors of heat or insulating materials. The materials tested were: New leaves, old leaves, flax fibre, sphagnum moss, chopped straw, sawdust, shavings, excelsior, wood pulp and cork clippings. The following table embodies a summary of the results. A full report may be obtained from the Department.

Table of Information Concerning Materials Tested

List of Materials	Weight per cubic foot		Per cent. Moisture Absorbed	Cost of Material per 100 cu. ft. of Commercial Materials	Relative Insulating Value
	lbs.	ozs.			
New Leaves	1	1	16.66	.....	2nd
Old Leaves	2	12	16.33	.....	4th
Sphagnum Moss	1	12	28.00	$12.80	1st
Excelsior	1	13	14.66	4.80	9th
Cut Straw	3	1	18.66	.....	6th
Wood Pulp	4	7	22.00	.....	10th
Flax Fibre	6	8	14.33	.....	3rd
Shavings	7	11	17.66	$3.71	8th
Sawdust	8	10	23.33	.....	7th
Granulated Cork	9	8	11.66	$46.00	5th

Ontario Department of Agriculture

NINETEENTH ANNUAL REPORT

OF THE

ONTARIO
Vegetable Growers' Association

1923

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1924

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To His Honour Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I herewith present for consideration of Your Honour the Annual Report of the Ontario Vegetable Growers' Association for 1923.

Respectfully yours,

John S. Martin,
Minister of Agriculture.

Toronto, 1924.

Ontario Vegetable Growers' Association

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Representative to Canadian Horticultural Council: W. H. Stewart, Aylmer East, Que.
Representatives to Royal Agricultural Winter Fair: W. H. Stewart, J. Lockie Wilson and A. H. MacLennan, Guelph.

FINANCIAL STATEMENT.

December 1st, 1922, to November 30th, 1923.

Receipts.

Balance on hand from 1922	$643 24
Grant	900 00
Membership Fees	277 00
Interest from Bank	41 98
Garden Competition Fees	35 00
Field Crop Competition Fees	195 00
Balance of C.N.E. Prize Money not used	24 75
	$2,116 97

Expenditure.

Auditor, 1922	$5 00
Convention Expenses	50 00
Fee to Canadian Horticultural Council	75 00
Postage	25 00
Excise Stamps	2 00
Expenses of Directors' and Executive Meetings	173 30
Refunds of Entry Fees	12 00
Stationery	34 50
Garden Competition Prizes	216 00
Field Crop Competition Prizes	480 00
Expenses of Ottawa Exhibit	9 00
Balance on hand	1,035 17
	$2,116 97

Ontario Vegetable Growers' Association

NINETEENTH ANNUAL CONVENTION

There was a most satisfactory attendance of delegates from the Branches of the Ontario Vegetable Growers' Association when the President, Mr. W. H. Stewart, called the Convention to order on February 12th, 1924, at the King Edward Hotel, Toronto.

PRESIDENT'S ADDRESS

W. H. Stewart, Aylmer, Que.

It is my pleasant duty to welcome you to the nineteenth annual convention of the Ontario Vegetable Growers' Association. With the passing years we more fully realize the increasing importance of our growing industry. Sometimes our line of work is likened unto that of a factory, and this may truly be considered so when in reality we are combining certain elements such as soil, fertilizers, labour, etc. and the better the skill used in the combination of such forces the better grade of commodity is produced.

Looking back upon the subjects discussed at past conventions we find that much time has been given to studying conditions whereby larger and better crops might be produced profitably from the same acreage; and as we pass along we notice that some growers are making much better progress than their neighbours. This proves that in our industry, as in any other, a certain degree of intelligence must be used in combination with other forces so that a reasonable degree of success may be obtained.

With much regret we notice that our membership has decreased somewhat during the past two years. Let us seek the cause and all co-operate in the removal of same. We are pleased to note, however, that the older members are still with us, thus it is apparent that the present members should urge the younger and prospective growers to join up. In many instances branches of the Association of Vegetable Growers are not doing as much as they should, caused by lack of workers. We require men who are willing to give thought and effort to the means for united progress. During the coming year let us all get busy and revive those growers who at present appear to be lacking in interest and energy. In the growing of vegetables we thin out to produce best results but in building an organization the opposite method should be employed.

When growers are not organized, quite frequently each grower is found to be working directly against the other to his own disadvantage. I believe a good organization works to the advantage of the progressive grower, because each one keeps track of what his brother grower is doing, prices are better governed and there is more chance to discuss general business. Markets are handled better by the union of growers than they can be by the individual grower. If each grower knows just what the other is going to do they can plan together and the results will generally prove more satisfactory to all.

There is a certain class of grower with whom you cannot talk. Men belonging to this class usually work in the opposite direction. It is impossible to persuade them to join an organization and you will notice that they are the ones who are always anxious to flood the market, they seem to be possessed with a spirit of selfish greed.

What we growers need is a better marketing system and along with that there must be better production, or more economical production, which is fundamental to good marketing. In many communities a co-operative organization has been formed to sell the produce, and it has been discovered that grading is necessary. Under the present system of production growers find that their produce grades mostly seconds, and seconds are not always profitable. No amount of co-operative organization will bring profit to the grower whose crop costs too much, whose yields are low or who cannot produce a commodity of prime quality.

Last year through your kindness in appointing me a delegate I was permitted to represent you on the Canadian Horticultural Council. In that capacity I attended a number of meetings and on other occasions helped to compose delegations on various subjects pertaining to our industry directly, or some other industry closely allied to it, and I wish to assure you that any decisions made by me were preceded by deliberations as to the advantages to be gained by members of our association.

One subject taken up by the Council from which the results accomplished will prove of considerable interest to growers is the elimination of the Sales Tax from vegetable packages and plants. The above action goes to prove that those in authority at Ottawa appear only too glad to remove any obstacle which might in any way be a hindrance to the proper development of any line of agriculture in Canada.

At our last convention a resolution was passed, asking that an amendment be made to clause 13 of the Root Vegetables Act whereby vegetable growers would not be asked to sell certain roots and vegetables by weight as it was considered it might be inconvenient for the grower retailing his produce to carry a scales. When this information was forwarded to Mr. MacIntosh, the Fruit Commissioner at Ottawa, he very kindly stated it was not the intention of the Department to cause any hardship to growers who wish to retail their goods on open markets, so an interpretation was given the above clause permitting farmers to sell vegetables covered by this Act in any kind of package so long as the sale is made by a specified weight, and the farmer assumes responsibility for the weight specified. In accordance with the foregoing, the inspectors, were instructed to visit farmers' markets and explain to the growers that they may use a basket, a pail, a box, a peck measure, or any kind of container on these markets so long as they sell the contents by the pound.

At a well attended meeting of the Ottawa Branch held shortly after last year's convention, I took the opportunity to state the above mentioned ruling, and the members present, after hearing various addresses, decided to support the new Vegetable Act which provides for the sale of vegetables by weight instead of by measure. The subject next came before the directors of the Canadian Horticultural Council and, on recommendation, was passed up to the Legislative Committee where it remains at present awaiting the results of your reconsideration. In a recent communication from the Fruit Commissioner I am advised that a request has been received from British Columbia and other western growers asking that cabbage, cauliflower, and possibly celery be added

to the list of vegetables affected by the Root Vegetable Act. Your consideration of the above additions is requested.

While enumerating the general activities of the Council special mention should be made of the following:—

A public bureau of information to members is provided on,

(a) Articles of interest to horticulturists relating to lists of available documents.
(b) Advice as to activities of the executive departments.
(c) General information on matters of Legislation.
(d) Providing a medium through which the public and the Dominion Government may be brought closer together.

As well as making improvements to present activities and service, it is the intention of the Council to make efforts to adopt,

(a) National Decoration or Memorial Day.
(b) Arbor Day.
(c) Registration scheme for gardeners and employers.
(d) General advertising for Horticultural products, fruit, vegetable, flowers and nursery stock.
(e) Certification of nursery stock.
(f) Formation of national societies, for Iris, Pæony, Rose and Gladioli.
(g) Legislation re Economic Poisons.
(h) Standardized score cards for judging Horticultural Products.
(i) National Day and Week.

The Seeds Branch of the Dominion Government, working in conjunction with the Plant Registration Committee of the Horticultural Council has opened up testing grounds at the Experimental Farm, Ottawa, where seeds of various varieties of vegetables are grown and tested with a view to the elimination of those improperly named. The result of this work will prove highly beneficial to growers.

As to the disposal of our crops, we all know that there is no money in falling markets; often at the height of a selling season the price of vegetables drops below the cost of production. Then it is up to the organized grower to look for a means of profitably disposing of his surplus crops. There is no necessity to let a crop spoil, or give it away at a loss. I believe that canning, in many instances, will save the grower from loss.

When we can control markets and obtain better prices our conditions are going to improve, and this is just one thing that is going to help us toward better organization.

Along with canning a new experiment is now being tried out by the Department of Agriculture, namely, the dehydration of fruits and vegetables.

Another line which will undoubtedly prove of advantage in the disposition of our crops is that of advertising.

The latest method of selling which is being employed, with much success, by our neighbours to the south of us is the Roadside Market. Quoting from the *Market Growers' Journal* we read, "It is expected the summer of 1924 will see more than 500,000 Roadside Farm Markets in successful operation throughout the United States. It has proven a much better method of making sales than by co-operative marketing for the small grower who caters to local trade".

What does the future promise for commercial vegetable growers?

Within the past ten years modern science has discovered the reason why certain foods are so efficacious in maintaining health and strength, correcting physical ailments, and encouraging growth. Vegetables have been found to be among the most valuable food materials known to the human race. While rarely furnishing the concentrates found in abundance in certain types of food and food products, the products of the vegetable garden provide a succulence bulk and supply of vitamins which excel in health producing properties. The world war brought the food problem to the front as never before in this prosperous country of ours. Abundance has been our privilege. Necessity and danger of want have been only suggested possibilities, and we have selected as our tastes and habits dictated, without study and without thought. To-day we are benefiting by our increased knowledge gained by force, strengthened by experience, and supported by science. Our business that of the production of essential food is becoming one of the most progressive and prosperous of all agriculture, although still in its infancy.

The fact that more food per acre is obtained through intensive vegetable growing than in the production of other types of agricultural products must always be pre-eminent, as nations grow older and the world more thickly inhabited. Together with this fact the knowledge of food values, the production of better quality, the elimination of wastes in marketing, will bring about greater increased appreciation and consumption of vegetables, by the public at large.

Prospects never looked brighter than for the coming year, all things being taken into consideration love for one's work and a happy home life are the main factors in making life worth living.

Moved by Mr Fretz, seconded by Mr. Cyr: "That the convention reaffirm the following resolution: Carried unanimously.

"We, the Ontario Vegetable Growers in convention assembled, wish to express our sympathy with the general provisions of The Root and Vegetable Act as it applies to standardization and the weighing of vegetables in the larger packages.

"We, however, wish to express our unanimous disapproval of Section 13, as it applies to the weighing of vegetables by the producer in his retail trade, on the open market.

"We believe it to be a physical impossibility for us to conform to this section of the Act, under our climatic conditions, and that it will cause a diminishing of the producer to consumer trade to the detriment of all concerned. We very strongly urge that an exception be made of Section 13, as far as it affects the grower in his retail trade, and that a copy of this motion be sent to the Hon. Mr. Motherwell, the Horticultural Council and the Fruit Commissioner, at Ottawa." Carried unanimously.

Moved by Mr. Davis, seconded by Mr. Kitney: "That the same resolution as last year on the Tariff be reaffirmed at this meeting and that a copy be sent to the ministers concerned and to the Horticultural Council." Carried.

COMMITTEE ON THE TARIFF

The chairman thereupon appointed a Committee on Tariff, to be composed of: Messrs. Fretz, May, Davis and Cook, asking them to bring in a report of the principal subjects to be taken up when it comes before the Council.

REPORT OF THE SECRETARY-TREASURER

J. Lockie Wilson, Toronto.

It is nearly a score of years since the Ontario Vegetable Growers' Association held its first convention in this city, and since that somewhat distant period the branches of our association have been continuing their upward climb, and steady progress has been made throughout the years. In sections where our branches have been formed many splendid greenhouses have been erected without which your bank accounts and provision for the time when you cannot work will not, I am of opinion, increase very rapidly. The initial cost to our growers of this necessary equipment is great, much too great perhaps, for the ordinary grower, but without it the best results cannot be obtained. A start, however, might be made with one of limited dimensions. One great value in the Vegetable Grower having a greenhouse, I need not tell you, is that it gives continuous work during the winter season, substantial results are usually obtained and steady employment is given to labour which it otherwise could not obtain at that season of the year, and the prices realized for winter-grown stock are usually remunerative. The vegetable crops in Ontario in 1923 have been fairly good, with, perhaps, the exception of tomatoes, which in some sections were practically a failure.

Until something is done, however, to prevent the train loads of vegetables being brought into Ontario, grown by cheap negro labour of the South, and in a country where there is no winter, and from a country that has built its tariff walls so high that we cannot send our surplus products to them, we will, I fear, plant our seed and grow our crops in the vain hope of reasonable remuneration. I notice by the press that the vegetable growers of Mexico have agents in this country arranging for large shipments to Canada during 1924. If this business scheme of the Mexicans is carried out, it will mean a greater handicap to our vegetable growers, who are working high priced land and are obliged to pay the tremendously high taxation which, apparently, is necessary to reduce the enormous indebtedness during the four years that your boys were fighting for the freedom of the world. I have not noticed that Mexican farmers did much for the cause of freedom, either financially or otherwise. The question is what are we going to do about it? Is the Government of Canada going to allow the intensive thrifty vegetable growers whose manner of living is surely of a much higher standard than that of foreign or negro labour to be sacrificed on the altar of what I think you will agree with me is false political economy? I know, and you too well know that there are no workers who have longer hours and steadier employment than the vegetable growers of this country. There are laws which need resistance and a cause that needs assistance for the good that we can do.

The millions of dollars Canadians invest in these products of foreign countries have already increased and continue to increase the balance of trade against us and further creates a depreciation of our currency which is now worth only ninety-eight and one-half cents on the dollar in the United States. Admitting for the sake of argument that the surplus dumped vegetable products of the United States and Mexico can be purchased by our citizens, say in Toronto for instance, at a trifle less cost than you can supply them, what is the result? Canadian vegetable growers are crippled financially, they are unable to purchase the necessaries their families require, and the merchant who bartered with the Mexican has killed the goose which lays the golden eggs for him. And of

Exhibit of Ontario Vegetable Growers' Association at the C. N. E., 1923.

this be assured, that no United States or Mexican dollar will be utilized in the payment of our taxes, labour and upkeep of our country. As I said before, what are we going to do about it?

I speak strongly on this matter because I know what you are up against, and this is no time to be mealy-mouthed or vacillating.

> "For a bold peasantry, its country's pride,
> If once destroyed can never be supplied."

The toilers on farm, vineyard, and garden are surely entitled to a decent living for wife and weans. We must act in the living present, heart within and God o'erhead.

All resolutions that were passed at the last convention have been forwarded to the proper authorities and no doubt are receiving their consideration. We trust that it may be a favorable one.

Our usual Field Crop and Garden Competitions continue to meet with the approval of our members, One serious difficulty we have to contend with is the securing of competent men to do the judging. A number of judges who were appointed by your Board refused, or were unable, to act and we were required to procure substitutes. This is a matter which should be taken up and seriously considered by the convention.

We should have a short course for vegetable judges similar to the ones held at Guelph and Ottawa for judges for Field Crops and Fall Fairs. The difficulty, of course, would be that we require practical and experienced men for this job. At a time when the crops are to be scored, our members are busy in their own gardens, but, perhaps, you may be able to suggest a plan that will be feasible. We certainly have a great work to do but I believe that as in the past you will be able to overcome any difficulties that may arise.

I want to congratulate the branches who assisted in putting up that great vegetable exhibit at the Canadian National Exhibition. The work devolved on a few; a change will have to be made in this connection and your advice and counsel will be necessary. The exhibit of your products at the Royal show was the finest, I think, ever put up in Canada. At both these exhibitions great credit was reflected on those who made them possible.

The exhibit at the Central Canada Exhibition put up by the branches east of Toronto was much admired by those who attended this exhibition. This exhibit was in charge of the Ottawa Branch, and I am sure that there is no group of vegetable growers in Ontario that are doing better work than the men in the Ottawa Valley. They spare no pains or effort to bring the Ontario Vegetable Growers' Association to the front.

Some doubt has arisen in the mind of the Municipal Council of the City of Ottawa as to whether they can legally make a grant to a branch of our Association. As the Ontario Vegetable Growers' Association was incorporated previous to 1906 under the Agriculture and Arts Act and has been in receipt of annual grants ever since, and the city solicitor of Ottawa agrees that if we were incorporated previous to 1906, grants would be legal, there should be no further technical objection to them being made. However, if you desire to make the matter perfectly clear I would respectfully suggest that the following amendment be made to the Act respecting Agricultural Associations:—

Section 18, subsection (e).—The Municipal Council of any city, town or village, county or township of this Province, may grant money in aid of any Agricultural Association formed within the limits of the Municipality or partly within the limits of other Municipalities when such Association has made the returns required by this Act to be made to the Minister.

I can arrange to send a speaker to any of the branches, which care to have them for their monthly meetings, who would address the members on topics of interest to our growers.

Co-operation, I am confident, in the purchase of seeds, fertilizers and containers and in the shipping of vegetables will prove remunerative. One of the great needs of our growers is the finding of markets for our surplus products. This, I think, could be best done by an officer of the Department, who would be in a position to inform our growers as to where the best prices could be obtained. The appointment of an official who would as in the past visit our gardeners from time to time giving advice and counsel, would also prove of value.

It is quite evident that the canning factories of Ontario are not able to utilize our surplus vegetable crops, and 1923 was similar to previous years when the prices prevailing were so low as to be unremunerative. I think it should be the duty of some outstanding power to remedy this serious handicap to your business. I doubt very much if the price per bushel of 30 cents for tomatoes, paid by the canners, will be worth your while to continue growing in such large quantities that exceedingly tender and perishable product. I should like to have your views particularly on this question. I notice that city men urge that more of the land surrounding Toronto be utilized for market gardens. I cannot see the logic of this argument coming from men who strenuously object to labour competition coming from other lands to what they claim is an already glutted market.

The Fruit and Vegetable Act passed some time ago by the Federal Government seems to have been drawn up by those who did not thoroughly understand the situation, and it now appears that it will not be enforced in so far as the growers are concerned. This is a matter that might well be discussed by our convention so that the Act may be changed and you will not be subject to the

tender mercies of over-zealous inspectors who may have their own ideas of the manner in which the Act should be enforced.

I am pleased to see so many of the old faces of the men who in season and out of season have never failed us at our annual gatherings, without whose efforts and untiring energy we could not have made the success we have of our Association. I am glad to see that a number of our young men are to take part in the programme this year. If we are to have a continuity of purpose, we must enlist these youthful growers, and in the not distant future we shall have to hand the torch on to them, and we are confident that they will hold it high and with their greater opportunities do even better work than we have done. I would ask you to see to it that those of you who have sons who are engaged in your business, become members of our Association.

I thank you for the kindness you have ever extended to me during my term of office. Many organizations like yours come under my Branch of the Department, but none do I hold in higher esteem than the members of our Vegetable Growers' Association, and my hope is that 1924 will prove both financially and otherwise a banner year for the hardest working men in the Province of Ontario.

Moved by Mr. TRICK, seconded by Mr. KITNEY, and unanimously carried: "That a resolution be sent to the Minister of Agriculture asking that the Act be amended so that the Association can legally receive grants from municipalities."

FERTILIZERS

ELI DAVIS, LONDON

Suppose we consider "Buying the unit of plant food at the lowest cost". What is the unit of plant food? In the fertilizer trade the prices of nitrogen, phosphatic acid and potash are usually quoted at so much per unit. The unit represents one per cent. of a ton or 20 lbs; a 4-8-4 fertilizer therefore contains 4% or $4\times20=80$ lbs. nitrogen; $8\times20=160$ lbs. phosphoric acid and $4\times20=80$ lbs. potash.

To find cost per unit, divide the price per ton by the number of units in the ton. Last year nitrate of soda cost about $72.00 a ton.

Nitrates	$72.00	divided by	15 = $4.80	per unit.
Sulphate	90.00	"	20 = 4.50	"
Acid phosphate	27.50	"	16 = 1.72	"
Muriate	53.00	"	50 = 1.06	"

To build a 4-8-4 from these materials, take:

2 units of nitrogen from nitrate of soda at $4.80 per unit	$ 9.60
2 units of nitrate from sulphate at $4.50	9.00
8 units of phosphoric acid from acid phosphate at $1.72	13.75
4 units of potash from muriate at $1.06	4.24
	$36.59

Prices on a commercial 4-8-4 last year ranged from $44.41 to $46.46. One firm did not list a 4-8-4 but had a 4-10-4 at $49.00. This contained two extra units of phosphoric acid worth $1.72 each. Crediting the 4-10-4 with these two units $3.44 leaves a 4-8-4 at $45.56. The difference between these prices and the cost of our home mixed 4-8-4 ranges from $7.82 to $9.87.

To make a 4-8-4—containing 2% nitrogen derived from nitrate of soda:

2% nitrogen derived from sulphate of ammonia,
8% phosphoric acid derived from acid phosphate, and
4% potash derived from muriate of potash.

According to the following formula:—

$\frac{2 \times 2{,}000}{15} = 267$ lbs. nitrate of soda.

$\frac{2 \times 2{,}000}{20} = 200$ lbs. sulphate of ammonia.

½ ton = 1,000 lbs. acid phosphate.

$\frac{4 \times 2{,}000}{50} = 160$ lbs. muriate of potash.

Total. 1,627 lbs. materials, no filler.

I am not kicking about the prices so much as about the quality. In our own mixing we know exactly what is in the mixture. The nitrogen in nitrate of soda is in the form of nitrate, the only form in which the plants can use it. The nitrogen in sulphate is in the form of ammonia which must be changed to nitrites and then to nitrates before it is available for plant food. The nitrogen in tankage is in the same form, and has to go through the same changes to become available, but is still slower than sulphate as the tankage has to wait for decay.

In warm weather the change takes place quickly, but in the early spring when the soil is cold, quite slowly. I believe that our fertilizers for early spring use should contain a fair percentage of the nitrogen in the immediately available form.

A fertilizer manufacturer naturally does not use the highest priced nitrogen carriers to make a cheap fertilizer, so if we want a special fertilizer for our special needs, the best way to get it is to mix it ourselves or get it mixed to our own formula.

Last year a man offered us a 5-35 5% nitrogen 35% available phosphoric acid at an attractive price. The 35% phosphoric acid was in the form of prec. phos. flour, and is a by-product of the baking powder industry. The 5% nitrogen came from packing house "stick". This mixture was not very well balanced for ordinary use, so our purchasing committee got a price on the following formula:

300 lbs. nitrate of soda,
500 lbs. sulphate ammonia,
1,200 lbs. 5-35 prec. phos. flour.

This gave an analysis of 10¼-21, but to be sure to be within the law was labelled 10-20 and cost us:

300 lbs. nitrate at $72.00 per ton	$10.80
500 lbs. sulphate at $90.00 per ton	22.50
1,200 lbs. 5-35 at $65.00 per ton	39.00
	$72.30
$4.00 for mixing and bagging	4.00
Total	$76.30

This was the actual cost of materials and mixing, and was, we thought, an ideal fertilizer for our business. Part of the nitrogen was immediately available, the part derived from sulphate of ammonia was more slowly available and the part in the tankage form more slowly yet. The phosphoric acid was all immediately available and was in a form that would stay available and not revert to an insoluble form in the soil.

Such men as we are in a highly specialized line of growing, should not be considered unreasonable, if we demand the exact composition of a fertilizer from the manufacturer. If any firm makes a fertilizer and is ashamed to tell us the exact quantity of different materials that are in it, we do not want it.

You will notice that I have not said anything about potash. This is because I do not know much about it, as we use very little, and have never been able to see any beneficial results from its use. It is not costly, as you could add as many units of potash last year to your mixtures as you wanted at a cost of $1.06 per unit.

Potato Crop from Northern-grown Certified Seed.

Last year when I was appointed chairman of our Purchasing Committee I was confronted with the term B. P. L.—Bone Phosphate of Lime. This term, as far as I know, was first employed by the fertilizer men in their price lists last year, and I thought that it was apparently put in there for my special confusion. I had to get a definition of B. P. L., so wrote to Prof. Harcourt of Guelph, and from his figures and what information I gathered from other sources I came to the conclusion that to multiply the percentage of B. P. L. by .45 gave us the total phosphoric acid. Take a tankage running 8 nitrogen, 29 B. P. L., multiply the 20 by .45, gives you 9, or 9% total phosphoric acid. The prices of nitrogen, nitrate of soda and sulphate of ammonia were nearly the same last year, but owing to the price of sulphate of ammonia being so much less than it was last year or nearly the price of nitrate of soda this year, the unit of nitrogen is much cheaper in the form of sulphate of ammonia, there being 15 units or 15% of nitrogen in nitrate of soda and 20 units or 20% nitrogen in sulphate of ammonia.

Q.—You would not use sulphate of ammonia to stimulate plant food?

Eli Davis: No.

Q.—Which crops do you use the 10.21 on?

Eli Davis: We used it on pretty nearly everything—potatoes, celery, beets, onions, carrots. If we thought that a little more nitrogen was advisable,

we used it in the form of nitrate as a top dressing, or if we thought a little more phosphoric acid was advisable we used it in the form of 5.35.

J. Lockie Wilson: Re the fertilizer manufacturers placing on sacks a tag describing the contents of that sack and the different mixtures: the Governments are particular to see that the farmer grades his eggs and fruit and if they are not up to a certain grade he is liable to be punished. Every honest fertilizer manufacturer should describe on that sack of his the contents. That suggestion by Mr. Davis is a good one, and a resolution by this Convention asking that fertilizer manufacturers be asked to put on every sack a tag stating the contents of that sack should be passed.

A Member: He has to place a tag on it now, stating the contents of the bag, but he does not say what it is manufactured from.

Mr. Emsley: The manufacturers are required to put the per cent. of plant food on every bag, but not the source of nitrogen or phosphoric or potash, because the manufacturer says he cannot state for a surety that he will use the same materials every time. I am a member of the Board on the Fertilizers Act, and it was brought up several times. It was suggested that they put up the source of ingredients, but it was voted down, the manufacturers putting up a strong protest saying they did not use the same ingredients every time. If it meets the available test, it will pass for the same, no matter what the ingredients.

J. Lockie Wilson: How can the farmer know?

Mr. Emsley: He cannot know from the guarantee of the analysis.

THE GROWING OF CELERY

Jos. Cyr, Cyrville

On our local market, during June and part of July, nothing but cold-frame celery can be obtained which, as you know, does not favourably compare with the open field product. During August, September, October and November, every grower has an abundance of fine celery, but many also have an inferior quality, resulting in a depreciation of the market. During the winter months we have to compete with imported celery, but in June and part of July we have no competition, and, therefore, it is profitable to have an early crop ready for that period. This I have succeeded in doing with very satisfactory results.

After trying the cold frame process I concluded that it could be used to better advantage than growing celery. In 1921, the first celery I sold from the open field was in the second week of July; in 1922, in the first week of July and last year, before the first of July, I had sold ten double rows of 200 feet long and, before the 20th, I had sold 40 double rows of the same length or the remainder of my early crop. This was done without spraying or dusting whatever. I always plant on the same field every year, it being black muck about 20 feet deep, fertilizing in the following manner: After the crop has been sold I sow clover, and when three or four inches long, I plow it under; then keep harrowing about once every week until late in the fall, when I plow in a heavy coat of well rotted manure.

I always buy my seed one or two years beforehand, which gives me ample time for testing. Paris Golden Yellow is, in my estimation, the best variety for an early crop. I started my plants in hotbeds, seeding during the last week of February. I make the beds very hot; in fact I never had made one as thick before last spring, using manure as fresh as possible, also using black

muck in the bed without fertilizers of any kind. I always let it stand about three days before seeding. I sow broadcast as thinly as possible on a very level surface, and also cover the seed, broadcasting sifted black muck until lightly and evenly covered. I then press it with a board made for the purpose, covering same with a linen cloth leaving about twelve inches uncovered at the bottom of the bed. I water every morning on top of the cloth until sprouted, and keep on doing so even after the cloth has been removed. The bed, being so hot, air has to be given even before germination. I give air from both ends day and night, as much as the weather will permit. After my plants are about an inch long I start giving them as much air as they will stand without freezing. In the third week in April, if I find that the field is ready or almost so, I take the sashes off, leaving uncovered at night even if freezing, using very cold water the next morning. I plant in April, and have not lost a single plant through frost although some nights the ground freezes enough to carry a man's weight. I plant in double rows, five inches between each plant and six inches between the two rows, leaving 34 inches between the double rows. Five or six days after planting, I spread nitrate of soda in the six-inch space at the rate of three or four pounds per 200 feet long. Afterwards I keep it free of weeds and, when 12 to 14 inches long, I blanch it with boards, six days being sufficient for the first lot. The later you wait the longer you have to leave the boards on to obtain the same results.

As far as we are concerned in our branch it is impossible to accomplish as much with greenhouse plants.

Another fact worthy of mention is that plants out of that same bed should not be planted later than the tenth of May as they will take the blight or grow to seed.

Now although what I have heretofore described is a paying crop, you cannot enter it in a prize winning contest, it being too early; moreover it would spoil a field entered in the garden competition.

I shall always be ready to help the Ontario Vegetable Growers' Association for the simple reason that it is striving to help us in every possible way. Although we, members from the east, may sometimes appear somewhat radical in our resolutions and in our discussions on particular economic questions, kindly bear in mind that we always do so with a view to helping to the utmost of our ability.

In planting celery in April, leaving 6 inches between rows, I put fertilizer as high as 3 and 4 pounds in 300 feet. Last year it did not hurt the crop at all, and if I try that later on in the season it will sometimes kill the celery.

A. H. MacLennan: It depends entirely upon what the fertilizer is made of. You get certain grades of tankage, it will burn the celery. Or it may be muriate of potash is there. That is why I was so interested in what Mr. Davis said in the making of their own fertilizer as they know exactly what they have. I know that the commercial manufacturers to-day cannot put more than about 85 pounds of calcium cyanimide in a fertilizer without burning. It is a cheap grade of fertilizer, but is a dangerous one from our standpoint. Mr. Davis' paper is one of the best things we have ever heard here for that reason. You never know when you get a fertilizer how it will work. Mr. Reeves one year bought tankage which nearly burnt the barn down.

F. F. Reeves: On our farm we have not got 6 inches of top soil where we grow celery. If you go down a little you strike shale. We use nitrate of soda quite as heavily as you said, use it three or four times as heavy. And so far I have never had any trouble in using nitrate of soda as heavy as that. Our

late celery is grown where we grow cabbage and cauliflower. We plant that all with celery, and we use nitrate of soda a week after planting, then every ten days for about four applications, so as to get it well ahead. I have seen it recommended to use 300 pounds to the acre and four applications. I use 500 pounds.

VEGETABLE GROWING BY A YOUNG GARDENER

Geo. Reeves, Humber Bay

Why am I a gardener? Perhaps the fact that I was born on a garden, and so far have never left it, may have some thing to do with it. There are, however, other reasons—I like the work, I like to watch things grow (except weeds, and they grow too fast). The knowledge that one has assisted perhape in a small way to grow something just a little earlier or better than someons else is an incentive financially and otherwise. It is a great experience. One is always learning something, especially by past failures, and if by those failures we are spurred to renewed efforts then surely we have done something worth living for. The greatest thing of all is that one is very largely dependent on one's own efforts and not like working in a factory and being just a cog in the machinery.

For a man to become a successful gardener, it is necessary for him to look at his chosen occupation from every possible angle, to consider possible failures and how he must tide over the bad times.

Good drainage is essential, especially in the hilly districts where the water runs down the hills and forms pools in the lower lying areas. These low areas should have a good system of drainage which will carry off the surplus water so that if a heavy rainstorm sets in, the crops growing in the low lying districts will not be under water for a number of days and be ruined.

Garden land is usually best if well-plowed in the fall, and in the spring it should be thoroughly disced and harrowed before the roller or boarder is put on it.

Great stress should be laid on the preparation of the soil. Where a grower intends going into intensive gardening and can obtain large quantities of manure he should apply from twenty-five to forty tons per acre. Unfortunately, it is impossible at the present day to get manure in large quantities, and we must use commercial fertilizers. We have found it advisable to use various combinations on our land. These can be mixed by the grower himself or bought already prepared from the fertilizer companies. The usual amount applied is from 600 to 800 pounds per acre. It can be put on the land before planting the crop, and thoroughly cultivated in or put along the rows after the plants are in and cultivated in to the soil. One fertilizer which has proved to be very successful on our land is nitrate of soda; when used on outdoor lettuce, especially, it gives an earlier and better growth.

The use of cover crops has also proved to be advantageous to the gardener. Fall rye sown at the rate of three bushels per acre in the early fall and plowed down in the following spring when about one foot high, then well-rolled or packed down gives good results. Wherever possible, clover is of most value to the land.

Rotation of crops is another thing which a young gardener finds he must practise. It has been found that one vegetable planted for several years in

succession on the same piece of land will take from the soil elements which are absolutely essential for the growth of that vegetable and without which it cannot be grown successfully. These elements can be largely replaced by the use of commercial fertilizers. It is advisable, when possible, to change the situation of each crop every year or two and give the soil a chance to regain the elements it has lost through the growing of a certain crop on it.

For a gardener to be successful he must use forethought. What vegetables will the consumer demand this year? How can I plan my crops so that as one is finished another will be ready? What work must be attended to to-day in order that I may have the necessary supply of vegetables ready for market to-morrow? He must know his market thoroughly and not go about his work in a haphazard way. He must realize that brains must be used just as much in gardening as in any business office. The day is gone when a man who has made a failure of every other kind of business should turn to gardening. No one should take up gardening thinking it is an easy job; it means hard work from daylight to dark. It also means that the grower must keep well informed regarding insects and diseases, their method of attack and control. One mistake many people have made is that they buy seed with the word "economy" in the back of their minds. The average gardener usually will find that it pays to buy good seed, for it will mean increased production in the end,

It is not usually considered advisable for a gardener depending on a nearby city or town for his market to specialize in any two or three vegetables. If he is selling almost entirely to the wholesale this may prove successful, but where he must cater to the public it is usually considered a wise plan to grow some of almost every vegetable which can be successfully grown on his soil. If he grows only two or three crops he runs the possibility of the market being "flooded", and this forces him to sell at a lower price than usual.

We have found, though, in the Toronto district that it pays to specialize in two or three extra early crops such as early potatoes, early cabbage and cauliflower, early beets and carrots. If we can get these on the market two weeks or ten days ahead of the other gardeners it means better prices. Catch crops have also proved to be successful with us; for example, lettuce can be sold all the year round in Toronto. This can be grown between other crops and very little time or money is risked on it should it prove a failure.

We have also found it to our advantage to rush our early crops such as early beets, lettuce, cauliflower and cabbage off as fast as possible so that we can follow them up with a crop of late celery, which will be ready to store just before it freezes up. On this crop it is also better to use a certain amount of nitrate of soda, and also mulch heavily with manure to get a quicker growth. This celery, if placed in a storehouse, can be kept till quite late in the season and it will then bring in a pretty fair price.

The main spring crops which have proved generally successful in the Toronto district are peas, spinach, radish, rhubarb, strawberries, beets, lettuce, cauliflower, cabbage, potatoes, beans and celery.

The fall crops usually grown include tomatoes, cabbage, cauliflower, corn, muskmelons, carrots, apples, parsnips, potatoes and celery.

Greenhouses have proved to be of value in order to keep in touch with the customers throughout the winter months. Lettuce, watercress, pepper cress, parsley, "Saxa" radish, and tomatoes are good greenhouse crops. People are glad to get fresh green vegetables in the winter, and these crops usually pay fairly well. Pepper cress seed can be planted between rows of newly transplanted lettuce and will be ready for market before the lettuce has grown large

enough to hurt it. A greenhouse is almost a necessity for a grower who is going in for early spring crops as he must start some of his vegetables shortly after Christmas so that they will be ready to transplant directly the frost is out of the ground.

Coldframes are also of advantage for "hardening" the plants. Tomatoes, cabbage, cauliflower and onion plants can be put into cold frames from about the middle of April to the middle of May so that if there is a slight frost when they are transplanted outdoors they will not be so liable to be affected.

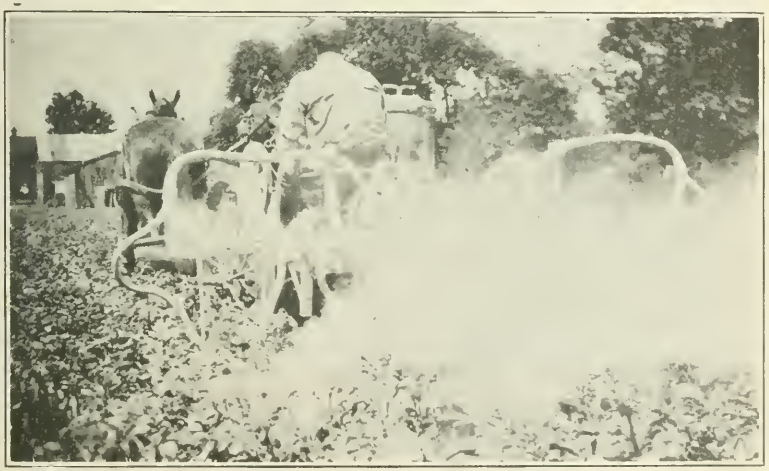
It is not only necessary for a gardener to know how to grow. He must know how to sell. His vegetables should be graded firsts, seconds and culls, and various prices charged. If he tries to palm off poor vegetables on a customer he will almost certainly lose that customer. Good square dealing pays. Vegetables that need washing and are not harmed by it; for example, bunching onions, carrots, beets, celery, leeks, etc., should be washed and packed in an attractive way so that they will be pleasing to the eye. Tomatoes which are grown on the ground often require rubbing to get them clean. One very important thing is that the vegetables should be quite fresh and not three or four days old when put on the market.

VEGETABLE SEED PRODUCTION

P. Stewart, Ottawa

I want to state the position of the Canadian Seed Growers' Association in its relation to the handling of home grown vegetable seeds, and after stating that position and our position as an Association, I am going to make a definite request for the assistance of your Association in our present dilemma.

For the past seven years the Vegetable Seed Growers of British Columbia have been undertaking the work of vegetable seed production of certain varieties, and the distribution and sale of that seed, with varying degrees of success. They have had somewhat of an up and down history. Last year a new Canadian Seeds Act made provision for the grading of garden and vegetable seeds as Registered Extra No. 1, No. 1, No. 2 and No. 3. In order that garden seed



Dusting Potatoes to destroy the Colorado Beetle.

may qualify for Registered or Extra No. 1 grades that Act lays down in its definition of Registered and Extra No. 1 seed a statement to the effect that it must be of a variety and selection approved by the Canadian Seed Growers' Association. So much for that side.

The Vegetable Seed Growers of British Columbia feel, whether they are right or wrong, that they are now in a position to qualify for Registered and Extra No. 1 grades; consequently the Canadian Seed Growers' Association is the organization upon which falls the obligation of taking the next step, making the next move in order that Canadian growers who wish Canadian seed of Registered or Extra No. 1 grades, pure as to variety, garden vegetable seed with a pedigree, with a guarantee, may get that seed in commercial quantities. That is why I have come to ask for your help. The Canadian Seed Growers' Association for the last twenty years has pedigreed seeds of cereals. It has never touched garden and vegetable seeds, has not been called upon to touch them until the last few months. In its work with cereals, possibly its greatest achievement as an Association of Growers has been the elimination of unfit varieties and the keeping down of their eligible list to the standard varieties which do best under general conditions.

Our first obligation, then, if we are going to give the service which we are now called upon to do, the service to the producers of Canadian vegetable seeds, and the service to the prospective buyers of them is to establish an eligible list of varieties, a list of varieties which we will as an Association set up for a start as an accepted list—the establishment of this list for the final word as to the varieties which shall come in—and we will look to the Provincial Seed Board of British Columbia to make the final suggestion. In each Province our Association has a Seed Board, and it is from those Boards that we get recommendations and suggestions as to the elimination of unfit varieties or the introduction of new ones. We will no doubt have the same routine apply to garden vegetable seeds, but we have asked the Seed Board of British Columbia to hold off for a few days until this meeting had given us its opinion as to the list of varieties which they would recommend. Our purpose for making that suggestion to the seed growers is obvious. We do not want particularly to register varieties because they produce seed in quantity in British Columbia or which are particularly popular in Britsh Columbia, knowing that the market for the seed which may be produced in British Columbia will be in Ontario and Quebec. Consequently it seems a wise policy, that we first obtain the opinion of Ontario and Quebec growers as to which variety they like best, and in turn submit that opinion to the Provincial Seed Board of British Columbia and get their final recommendation and approval to what we call our Dominion Appeal Board.

This afternoon, therefore, I am hoping, that you may see fit to so arrange matters here by way of general discussion and decision by a committee, or in any other way you see fit, so long as you arrive at a decision which will enable us to place a list before these British Columbia growers of seed and say that is the wish of Ontario.

Mr. Ritchie representing the Dominion Horticulturist has very kindly consented to be here this afternoon and to give a talk on some of the technical points and an expression of the situation regarding seed production.

Moved by Mr. G. C. Brown, seconded by Mr. Trick, "That the following constitute a committee to go into this matter: Messrs. MacLennan (Chairman), Cooke, Ritchie, Robb, Stewart and Trick. Carried.

Mr. RITCHIE: Mr. Stewart discussed the matter with me and we decided that we would divide the subject, he dealing with the work of the Canadian

Seed Growers' Association as related to the growing of vegetable seed. The new Seed Act, which has just been put through, I believe, is going to yield good results in the near future if the vegetable growers in the different parts of the country will render their support in the way that Mr. Stewart has already mentioned. During past years practical men like your people here have experienced difficulty in obtaining vegetable seeds that were altogether to your liking. The results in crops were probably for the biggest part a thorn in your flesh. And now we have a new industry springing up in Canada. Just to what extent it will carry on will depend on the support that the growers of vegetable crops will give them. In British Columbia quite a number of vegetable seeds can be grown successfully. That being the case, we should support those men to the fullest measure. The type of support that I believe will be of most value to them is for the grower of vegetable crops in Eastern Canada to name varieties that are most suitable for the conditions here, namely in Eastern Canada, and through a system of registration like Mr. Stewart has just mentioned to you, those varieties can be guaranteed to you as practically pure or as nearly pure as it is possible to get them. You know yourself that in a strain of any variety of vegetables there is a variation, and that has to be allowed for; consequently in a selection of Chantenay carrot you will find all ranges of types within that strain within its family. So that you must not be too hard when you get vegetable seeds, Canadian grown, of registered stock. Do not blame the producer too severely if there is a little variation of type.

Mr. Ritchie then read the following list of varieties proposed:

Cabbage (*Early*)—Early Jersey Wakefield, Copenhagen Market, Golden Acre.
(*Late*)—Danish Ballhead (short stem).
Carrots—Chantenay, Danvers.
Cauliflower—Early Snowball, Danish Perfection.
Celery—Golden Self Blanching, White Plume, Evans Triumph (green).
Corn (*Sweet*)—Early Malcolm, Golden Bantam.
Beans—Round Pod Kidney Wax, Golden Wax, Stringless Green Pod.
Beets—Early Flat Egyptian, Detroit Dark Red.
Lettuce—Grand Rapids, Iceberg.
Melon—Osage, Hoodoo (Hearts of Gold), Cole Early,
Onion—95% Yellow Globe Danvers, White Globe, Red Globe, Extra Early Flat Red, Giant Yellow, Prize Taker.
Peas—English Wonder (Dwarf), Thomas Laxton, Gradus.
Pumpkin—Pie.
Squash—Green Hubbard, Warted Hubbard.
Tomatoes—Red Bonny Best, Red Earliana. Pink Livingston Globe.
Turnips—Extra Early Purple Milan, Golden Ball.

F. F. Reeves remarked that those around Toronto who had tried out Golden Acre cabbage this year were more than satisfied. Copenhagen had varied much these last years.

Mr. Ritchie: One of the important things is to keep down the number of varieties. That has been one of the curses of the seed trade in the past. At the Central Farm last year, in co-operation with the Seed Branch, the Dominion Department of Agriculture has been carrying on a comparison test for trueness of variety, and we tested 3,000 samples of vegetable seeds. In celery, 36% of the varieties came 100% true; carrots, 27% came 100% true; bean figures not ready; beets 40%; lettuce, 59%; parsnips, 57%; onions, 71%; peas, 87%; radish, 49%.

Mr. Lefebvre: Could we grow any of the Danish grades of vegetables if we seed fit, for our own purpose?

Mr. Ritchie: Yes.

P. Stewart: Registered vegetable seed will come to the planter with the seal of the Dominion Seed Branch and with the tag outlining the crop registration number of that seed and the seed certificate number and the grade, Registered or Extra No. 1. Now if you will take a copy of the new Seed Control Act, you will find that in order to be graded Registered, vegetable seed has to be of certain purity of variety, certain germination, etc.

CAULIFLOWER

F. Presant, Guelph

The Cauliflower growing industry was probably first started on this continent on a large scale in the Long Island district of New York State, and was thought for a time to be limited in its extent by soil and climatic conditions. To-day, however, we find that it has developed to such an extent that the crop is grown in practically all districts where general truck and market garden crops are produced. Cauliflower is offered for sale on the larger markets the year round, a large part of the winter supply being produced in California.

In Ontario our present estimated acreage, grown for all purposes is in the neighbourhood of 395 acres. These figures are based on those obtained from the survey of the vegetable growing industry made some years ago to which a 15% increase has been added. The United States acreage for 1919 was given as 6,513 acres, 80% of which was grown in the two states, New York and California. There is a large production of cauliflower in parts of New York State which are lying along the lake shore border. We have much land in Ontario in which climatic conditions are quite similar and on which the best of cauliflower can be grown so that our possibilities from the production standpoint are of the best.

At present, from the previous quoted survey we find the growing of cauliflower to be pretty well spread throughout all of our truck and market garden sections. The most concentrated areas is that which we will call the Toronto district and takes in York county. This is the order in which the leading districts follow as shown by the figures used: Toronto, Hamilton, Niagara Falls, Ottawa, St. Catharines, Welland, Brantford, Peterboro, London. Are there not some particularly well suited districts in the province where this crop might become a specialized one and be developed to such an extent that carload lots of a well-graded uniformly good quality product could be profitably shipped to points outside the province? I do not know what prospects are offered in the way of markets, but the matter will bear investigation, not only for this one crop but for other vegetable crops which we can grow here in Ontario with the best of success.

During the past season, in Ontario, one of the best crops of late cauliflower in many years was produced. There was a plentiful supply of choice stuff to be had on most of our markets throughout the province. No doubt, favourable seasonable conditions were largely responsible. However, a noticeable feature during the season of 1923 was the short supply of the mid-season crop. This is likely to be general when we have hot, dry weather during the summer months. A crop at this season would prove profitable to the man who had it. Would it not suggest that planting with the gardener should be made over a fairly wide succesion of dates, covering the time from the start of the early crop right through until the late crop was started?

For all crops and particularly the intermediate one, land containing a large amount of humus and with constant moisture supply should be used to help get best results. Irrigation should give results as well as the use of a manure mulch. Also, if stocky, sturdy, well rooted plants, developed by careful growing and transplanting in the seed and plant beds are used for setting out, the chances of producing a good crop under somewhat unfavourable conditions would be improved.

Seed

The seed question in connection with cauliflower production is both important and interesting. In looking over the reports of the U.S. Department of Agriculture, covering the importation and home production of vegetable seeds I found that cauliflower and Kohl Rabi seed are the only two which are listed as being obtained solely from imported supplies. This would indicate that home production of this sort of seed is negligible. We are in a similar position to this in Canada.

Climatic conditions, as well as some others necessary for the successful production of cauliflower seed which will give us best results when planted here, are very exacting. Parts of British Columbia may, in the future, be able to produce such seed, for some promising results have already been obtained from seed grown in the Puget Sound district of the Western American coast.

Meanwhile we get our best cauliflower seed from Denmark. One authority goes so far as to say that all the good seed we get comes from this country. It would also appear that the parts of the small kingdom of Denmark where this seed can be successfully grown are quite limited.

Danish seed is high priced since it commands the top place in the regard of growers the world over. Producing a crop of cauliflower seed is moreover an expensive and fairly risky undertaking, though an average good crop is said to yield 250 pounds of seed per acre. However the grower does not get all the price for his crop that we pay for the seed. I believe, that at present, at least two large Cauliflower Growers' Associations in the United States are buying their seed direct from Denmark with highly satisfactory results.

Seed from Danish stock is grown all over Europe, and the grower must beware of buying cheap, so-called Danish seed. If he is tempted he should buy it on a deferred payment plan, payment being subject to a satisfactory test.

Marketing

Cauliflower is possible of wide distribution in the matter of marketing when properly handled. From California this crop is shipped crated, to points all over the United States, and also to Canada, having been pre-cooled previous to being packed in iced cars. Under this system it will arrive in good condition after having been in transit two weeks or more.

A good type of crate for shipping cauliflower is in use by the Erie County Growers' and Shippers' Association of Orchard Park, N.Y. It is a crate with sloping sides and holds, when uniform heads are packed, four along each of the two sides and three heads in the centre. The heads are trimmed with about half inch to one inch of leaf growth extending above the top of the curl as a protection to it.

Cold Storage

Cold storage will, no doubt, shortly become very effective in aiding better distribution of many of our vegetable crops. Cauliflower should be one of

these so affected. In conversation with Mr. A. Fulton who is in charge of the Government Cold Storage Plant at Brighton, I learned that he had been carrying out some investigational work in the matter of cauliflower storage. His results cover only one year's work, and hence he does not wish to have much said about them as yet, but it would appear that there is much promise shown and that both mature and immature heads are capable of being successfully stored for considerable periods.

It would be a good thing for the vegetable growing industry in Ontario if we had more means and facilities at our disposal for carrying out more work along this and other lines tending to aid improved marketing and distribution of Ontario's vegetable crops.

Seed Disinfection

Certain diseases including Black Rot and Black Leg of cauliflower, cabbage and other members of the same family develop on seed plants and are liable to be present in your seed. It is also possible that under certain conditions some of the other seed diseases may be present as well. The presence of these disease germs cannot be easily detected until the disease has developed in the growing plant.

Much of this damage may be guarded against by disinfecting the seed, before sowing, in corrosive sublimate solution. Corrosive sublimate can be procured in tablet form at drug stores or in bulk and is used at the strength of one part to 1,000 parts of water (1 oz–6¼ gals.) The seed may be immersed in a coarsely woven bag and is soaked for a period of 30 minutes then spread out to dry, being stirred as is needed while drying.

This treatment is very effective for seed-borne Black Rot germs but Black Leg germs may enter the seed coat to a certain extent and so the corrosive treatment is not entirely effective. Under favourable conditions a few germs which have escaped treatment may start the disease in a few plants and spread rapidly to others.

Considerable loss is also often suffered through disease developing in the seed bed and either taking the form of damping off or of developing into one of those diseases which show up in the plant later on. Soil disinfection previous to planting the seed, the use of fresh clean soil on which no crops of the same family as the cauliflower had previously been grown and by not allowing the accumulation of too much moisture in the surface soil of the seed bed, with the maintenance of good air circulation about the plants are all points which will assist in overcoming this loss.

Insect Pests

Cabbage Root Maggot. In some districts there is still considerable damage being done by this destructive pest to the early crop of both cabbage and cauliflower plants. The corrosive sublimate treatment is entirely effective, and should be used as soon as the fly which lays the eggs or the eggs themselves are found. The strength of the solution is 1 oz. of corrosive sublimate to ten gallons of water and two applications per plant should prove a cheap crop insurance. Just a little of the solution around the roots of the plant is sufficient and a good way to apply it is to use a watering can with the spout removed.

Cabbage Worm. This pest is always more or less troublesome and is the larva of the common white cabbage butterfly. Arsenate of lead in solution

1½ pounds powder to 40 gallons of water or in the form of a dust, 1 part of arsenate of lead powder to 10 parts of air-slaked lime applied when the dew is on the plant, will give good results in controlling the worm. This poison must not be used after the head has commenced to form. From this stage

Spanish Onions Grown in a Backyard.

onward Hellebore will have to be used if the worm becomes troublesome. This material may be applied either in dust form or in solution. If used as a spray one ounce of powder to two gallons of warm water is recommended, and if dry, alone or mixed with flour or fine air-slaked lime in the proportion of one to five.

F. F. Reeves, Humber Bay: When we started gardening, the growing of early cauliflower was supposed to be one of the hardest things you could take hold of. You would hit one crop and miss three. For the last eighteen years we have been among the first in Toronto market with early cauliflower. There is a little series of valleys and hills up at our place, but we have soil on which we can grow almost any of the common crops that are grown by gardeners. For the last eighteen or twenty years we have lost only one crop of early cauliflower. That was our own fault, as we did not use the preventive for the cabbage maggot. Our earliest cauliflower seed is sown about the last week in February or the first week in March. We put good, well-rotted manure in flats, and sand in the top of the box. In our experience a good sharp sand has been a fairly good preventive from damping. Just as soon as the rough leaf appears, we prick out in flats again, about 100 in a box. As soon as they begin to crowd a little they are all potted in thumb pots or a pot about 2 inches across the top. They are grown in that the balance of the season or until planted out. We have planted out-of-doors the last two years somewhere between the 18th and 23rd of April. The plants are taken from the greenhouse and hardened out in cold frames. We tried for two years an experiment of our own to see what difference there was in a potted plant and one grown 50 or 60 in a box. Our experience has been that we gain a week on a potted plant. You all know what that means—a difference probably oftentimes of $1.50.

Our soil whereon we generally grow cauliflower is a very good sandy loam just as full of manure as we can fill it. We have been growing cauliflower on the same place, and the cauliflower ground has had two crops of manure, every year, just as much as we can plow into it, in addition to some artificial fertilizer. I have been told that a lot of pots have to be weeded out, but perhaps because I have my own boys and they are more careful, our loss is practically nil. However, after we plant I use nitrate of soda. I can't tell you how much to a plant, but what we can hold between our thumb and two fingers is dropped on the plant and scuffled in. That is done three and sometimes four times during the growing season. The plants are kept scuffled as often as we can, once or twice a week.

Our late crop is sown about the end of May. We have had a little experience with late crops. We purchased another 50 acres for vegetable work in the last few years, and it is quite a job to turn a farm into a vegetable garden. It takes a lot of work and costs money. We have a peculiar soil. While it is not a clay, still it is very apt to pack for a quarter or half inch on the top after rain. Two years ago we started an experiment. In the past we grew cauliflower in soil which had clover plowed in in the fall, about twenty ton lots to the acre of manure in the spring, and then as a little assistance again when we were ready to plant, we spread about 10 or 12 spreader loads on top, of that, and disced it in. This gave us a better crop than where we had as much manure before, but was underneath, and the ground did not pack or harden. We are going to try that again this year. The varieties that we grow are Danish Perfection and Snowball. We have tried the Danish Dry Weather but it was a little too long in the leg.

Q.—You use just one application of nitrate of soda?

F. F. Reeves: About three.

Q.—And you find it pays?

F. F. Reeves: Yes; for the last two years we have had two crops of cauliflower on the same plot. I cannot explain in connection with corrosive sublimate, but there is something about the action of it on soil which makes the plants grow quicker. Whether it releases some chemical action in the ground that feeds the plant, I do not know.

VALUE OF COVER CROPS TO THE VEGETABLE GROWERS

J. Ruthven Wilson, Port Credit, R.R. 2

With the automobile replacing the horse, and intensive farming such as yours is, crowding the stock off the farms of the vegetable gardeners, there is this great question confronting us as to the best methods of keeping up the fertility of our soils, and we will be required to in some measure replace barnyard manure, either with commercial fertilizers or cover crops. Both I am of the opinion, should be utilized.

One great problem in successful farming is that of maintaining the fertility of the soil, so as to produce crops. This fertility does not mean only plant food; water, air, sunlight, temperature, soil bacteria, and all the other conditions that make the soil suitable for plants, the texture of the soil as much as its richness, and its water moving power as much as its composition have to be considered. Plant food is only one of the conditions necessary to the growth

of crops and often it is not the most essential. The fertility of the soil is the sum of all the conditions that make it possible for the seed to sprout, the blade to spread, and the ear to ripen. Our problem of maintaining and restoring fertility to all gardens is much broader than that of merely adding plant food to them. In speaking of fertility we naturally think first of manures, commercial fertilizers, and other means of enriching the soils. These are all very important sources of increased fertility, but fertility is not dependent on them as many consider. The manner in which a soil is handled has as much to do with its fertility as its composition, or the amount of plant food added to it. It depends upon thorough cultivation, draining, irrigating, and other tillage, and cultural operations fully as much as upon manuring, fertilizing, fallowing, etc. This problem is a great one and it is solved by some in one way and some in another.

Plant food is not fertility but it has a very important influence on it. A soil's power to produce crops is very rarely measured by the amount of plant food it contains, yet richness is a valuable asset of a farm soil and no one can afford to disregard it in the modern emphasis on good texture and other desirable attributes. The actual richness of the soil and plant food depends largely on its fineness; a leachy sandy soil, for example, is not likely to contain more than a third as much plant food as an alluvial clay; a limestone soil is usually richer than slate soil. The point which needs to be emphasized most, however, is not that farm soils vary greatly in native richness, but that practically all farm soils, including those which we consider poor, contain a vast amount of plant food.

The analyses of ordinary soils show that many of them contain large quantities of plant foods that we buy and apply grudgingly. An average farm soil usually contains 4,000 pounds of nitrogen, 6,000 pounds of phosphoric acid and 20,000 pounds of potash per acre in the upper 8 inches of soil. So-called worn out soils which scarcely produce enough to pay for the work on them, often contain nearly as much plant food as mentioned before, while rich soils have over 6,000 pounds of nitrogen, 10,000 pounds of phosphoric acid and 50,000 pounds of potash per acre in the first eight inches. The soil below the first eight inches spoken of usually contains nearly as much and a portion can be utilized by the roots of most farm crops. The figures quoted must be astonishing to those who believe that a soil gradually ceases to be productive because the plant food becomes exhausted. Chemical analysis has proved that a soil that has become so poor that it hardly pays to crop it is likely to have stored within it many tons of plant food that is in no way exhausted as we have been led to believe, but the fact remains that this soil does not produce large crops. Wherein does the trouble lie? Many tons of plant food that chemical analysis finds in ordinary farm soils is unavailable from two causes. First it may not be in the right form for plants to use, it may be in a compound that is distasteful to plants or it may be in a form that is not soluble in soil water so that it cannot be absorbed by the roots. Plants accept food only when it is in certain form.

Chemists cannot, however, tell how much of the total amount of nitrogen, potash, and phosphoric acid that he finds in soil, is in such shape that plants can use it. They cannot, with any degree of certainty, determine what proportion of the 4,000 pounds of nitrogen, 6,000 pounds of phosphoric acid and 20,000 pounds of potash that are in an acre of average farm soil, is in the right form for crops to use. There is no way of finding out this very important point except to grow plants upon the soil. This great amount of plant food that is found on ordinary farm soils may be made useless to crops for the time being by poor texture, lack of warmth, and poor drainage.

Richness in plant food avails nothing if there is not enough water to make a large quantity of a weak solution of that food for the roots to absorb. Arid lands in the west are very rich in plant food but are useless for cropping until water is applied to them. The tons of plant food in a soil are of as little value as red sand, unless the soil has the power to move water rapidly to meet the needs of the crop. Drainage may make an unproductive yet rich soil productive, plowing under green manures may make a similar improvement. The depletion of our soils is not due so much to continually cropping, though the drain of the crop upon the amount of available plant food may be quite heavy. This is especially true on light and leachy soils from which the soluble plant food is quickly lost by leaching. In other words the amount of plant food drawn from the soil by farm crops makes little impression upon the total amount that is in it; but it often does make a decided impression upon the amount of soluble or available plant food in the soil which is after all the kind of plant food which is of chief interest to the farmer.

The most important point in the new theory or soil fertility is the positive statement that the roots of plants do excrete substances that correspond in functions to the excretions of animals. This is used to explain the value of rotation of crops. We have been accustomed to believe that the reason why a rotation of crops results in increased yields is because the different feeding habits of the crops bring a larger area of soil under tribute and equalize the demand upon it because it improves the texture of the soil, alleviates weediness, disease and other difficulties. The new explanation is that the benefit of rotating crops is not due so much to those factors, although their importance is not denied, as to the fact that a rotation puts a new kind of plant into a soil that has become clogged with the excretions of the old crop and which has therefore become "unsanitary", so that the old plant cannot grow well. The new plant is not injured by the excretions of its predecessor and so makes a vigorous growth. We have been led to believe that the value of supplying manures and fertilizers to the soil is that they enrich it with the plant food that they contain, and that this plant food that we apply is actually needed by the crop and used by it. The new conception is that manures and fertilizers are valuable chiefly because they aid in renovating the soil or in cleansing it of the plant excretions, although they do supply plant food. In other words fertilizers are chiefly beneficial not because they enrich the soil but because they purify it, they act not upon the plants but upon the soil. They purify the soil from the excreta from the crop that has been grown and so affect the crop that is to be grown. If the same kind of plant is grown continuously on the same land the soil becomes so clogged with this plant manure that this kind of plant will no longer thrive in it but other kinds of plants will.

Humus is nature's carbon black. If an abundance of humus is present in the soil it absorbes these plant excrements, and the soil is kept in a sanitary condition. Commercial fertilizers are valuable not merely for the plant food they contain but also for their cleansing action on the soil. Manures benefit the soil chiefly because the humus in them cleanses the soil.

The soil on my farm is one-half sandy soil and the other half gravelly. I have purchased each year several carloads of stockyard manure and, have grown cover crops annually. I have used rye, sweet clover, and rape. I know from the increased crops I am able to grow that these cover crops have proved to be of the highest possible value, and I have become a firm believer in what is called green manuring. The key to maintain the fertility of the soil is to

have plants decaying in it all the time, as is the case in uncleared land. It must be clearly understood that humus alone cannot maintain fertility. No amount of green manuring can enrich the soil in the mineral plant food, potash and phosphoric acid, and there are many soils in which these are exhausted; fertilizers and manures must be used to make good this loss. Almost any herbaceous plant has some value when plowed under as a green manure, even the weeds that get a foothold in the late summer serve one useful purpose in this way. There is a distinction between crops for green manuring; they may be leguminous or non-leguminous. A leguminous plant is one that among other characteristics bears its seeds in a certain kind of pod, called by botanists "legume". Peas, beans, clovers, vetches, alfalfa, soy beans, and cowpeas are examples of leguminous plants commonly used for green manuring. If your soil is more or less lacking in the plant food nitrogen, a leguminous crop should be grown for plowing under in preference to a non-leguminous crop, like rape, buckwheat or rye. Through the little warts or nodules on their roots, leguminous plants may feed upon the nitrogen that is in the air instead of drawing upon the supply that is in the soil. When these plants are plowed under, therefore, the soil is enriched with the nitrogen they have gathered.

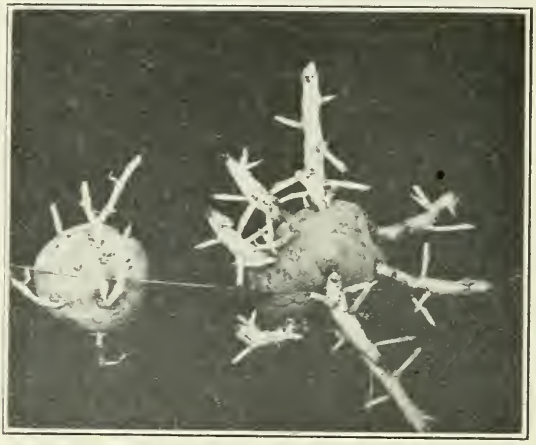
It is a common mistake to allow our clover crop to grow late into the spring and until it gets woody, the earlier it is plowed under the more moist the soil is as a rule and the quicker the plants decay. In my section of the Province on the Mississauga Road, we keep no cattle and use our land for the growing of fruit and vegetables. I have grown for several years, as my neighbours have done, large crops of corn. After taking off the cobs, the corn stalks in the district were usually cut and burned. Last year after taking off the cobs, I went over it several times with the disk, then plowed under the stalks. A little later I sowed buckwheat on this field, which when about two feet high I also had plowed under. The corn stalks having been plowed down in the green stage rapidly decomposed, and when the field received the last plowing I had no trouble at all with any stalks turning up. Had I allowed these stalks to become dry before plowing them down, I fear that my labour would have been in vain. Neighbouring farmers claimed that the corn would not rot, but they were mistaken, and I know that the plan will be adopted by others in the future.

Harper Secord: I believe in crop rotation, and that cover crops do answer in a way and we should give them credit for it. For instance, if we grew a crop of early tomatoes or early cabbage, and our land was going to be bare until the fall, if we sowed rye or clover to be plowed under that fall or the next spring it would serve a good many purposes. On our farm at home we always figure never to have any bare ground if it is at all possible. First of all, we like clover and plants of that family. If we cannot have clover, we have something else. We use rye. There is something in cover crops that people lose sight of, and that is the fact that while the ground is bare there are nitrates forming in our soils, and that very often in the fall and early spring unless we have a crop on the ground to arrest them for its future use, we lose a lot of crop fertility. There is a certain amount of prejudice against cover crops and especially against rye. It grows pretty rapidly in the spring, and unless you plow it down early it defeats the very purpose for which you want it. Always plow it down early, and use a roller two or three times and chop it down with a disc. I advise everybody, even those with only a little land, to grow cover crops as economically as they can. It will save labour and manure, and they will be able to grow a better quality of vegetables.

COST OF CONSTRUCTING AND HEATING A GREENHOUSE, 25 BY 80 FEET

J. A. Hart, Toronto

As requested by your secretary, I have endeavoured to gather some figures on the cost of a greenhouses 25 x 80 feet, both in the pipe frame and steel frame constructions.



Strong and Weak Potato Sprouts. Those on the left should not be used for seed.

The figures for the pipe frame are as follows:—

Superstructure work erected including the necessary ironwork, cypress woodwork, ventilating machinery, hardware, paint, putty, and the glazing would cost $1,457.91; the glass, 30 boxes, 21 oz. D.D., $366; excavating and cement work for the two side walls and one gable, $277.50; heating. $951.16; making a total of $3,052.57.

This pipe frame house would have galvanized angle eaves with necessary brackets for supporting the roof bars, and galvanized drip pans for taking care of the condensation. This eave would be supported on either 2-inch pipe posts or wrought-iron posts ½ x 3½ spaced 8 feet 4 inches apart. There are two purlines of 1¼-inch pipe on each side of ridge, and necessary pipe straps to attach to the roof glazing bars. These purlines are supported with 1¼-inch pipe spaced 8 feet 4 inches apart with 1-inch tie rods between the purlines, these are connected with split T's. There are also ⅜ rods from the purline posts to the eave posts to prevent any spreading. Iron straps are placed along the ridge where the bars connect to the ridge holding the three members securely together.

On the gables at each side of the door wrought-iron stiffening bars are placed extending well above the cement walls for attaching the door stiffener, at the same time bracing the end.

Ventilating machinery would consist of two double geared machines of a self-locking type, locking the ventilator at any desired opening, sufficient number of brackets, and also levers to give an even opening for the ventilator, ventilator shaft to consist of 1-inch pipe coupled together with wrought-iron clamp couplings to prevent the pipe from unscrewing.

Woodwork. The walls will be capped with a cypress sill and a special moulding will be placed under the galvanized eave to attach the side bars to, the side bars are for lapped glass 1⅜ by 1¾. The roof glazing bars are for lapped glass 1⅜ by 2¼ with condensation grooves at the sides. The ridge is 1⅜ x 4½ capped with a special moulding. The ventilator is continuous, divided into two runs 40 feet each. This ventilator is made up and held in place with brass screws. There is a ventilating header rabbeted out to fit over the roof bars with a condensation gutter to take care of the condensation at this point.

The gable is to have one door and the bars are the same size as the side bars.

Hardware, sufficient finishing nails, screws, galvanized hinges with brass pins, for the doors and roof ventilator, sufficient greenhouse putty for the whole house will be supplied, and zinc glazing nails for holding the glass in place, and sufficient glazing strips for the galvanized eaves, sufficient greenhouse paint for two coats would be supplied, the first coat being supplied before shipping.

The cost of this house can be materially reduced by the owner doing the erecting himself, and we find in most cases the average gardener has had sufficient experience to do this himself in his spare time.

The materials only for this house, that is the superstructure work, would cost $1,044.51; thirty boxes of glass, $366; piping and fittings for heating, $400; one No. 6 boiler and expansion tank, $312.76; making a total of $2,123.27.

This figure can be again reduced by using second-hand material which is very often on the market.

The cost of a steel frame house of the same size would be $3,395.91 complete. The superstructure work would be $1,801.25 as against $1,457.91 in pipe frame, a saving of about twenty-four per cent.

We have not gone into details of the steel frame as the average vegetable grower looks at the first cost, and is out to cover as much ground as possible at the least expense.

The question very often arises as to the life of the two styles of houses. Pipe frame will outlive steel frame. Following the ground line both houses are identically the same, therefore the lasting qualities at this point would be the same. The roof in the steel frame you simply reduce your sash bar and what you take from this you place into the steel bar throwing the strength from one to the other. The sash bar on a steel-frame house is 11-16 x 1¾ and sometimes lighter. The pipe-frame bar is 1⅜ x 2¼ and 2½. In the pipe frame you distribute the strength equally over the house by using the heavier bar, and again the question is which sash bar will rot the quickest as the conditions of each are the same.

C. Fretz asked what side ventilation would add to that.

J. A. Hart: It would add about $1 to $1.25 a foot, including the sash and machinery.

C. Fretz: If that was hot water or steam?

J. A. Hart: Hot water. It is not advisable to use steam for that size of house.

CAN THE AVERAGE VEGETABLE GROWER MAKE A GREENHOUSE 80 BY 25 FEET PAY ?

N. T. Sanderson, London.

To my mind a small greenho se is a necessity to the average vegetable grower. If every vegetable grower had such a house, the profits it is true, would be somewhat slim, but a great many growers have no desire to be kept busy in the winter time, other than to market their roots, repair their implements, and put them in shape and haul the manure necessary for their land. Others again are summer gardeners, and have other occupation for the winter. The latter class has been reduced to a minimum lately, owing to the scarcity of work in the cities in some parts during the winter months.

To make a small, as well as a large greenhouse pay, it must be properly heated and laid out. The most popular and best way to heat it is by hot water, but the old practice of using an upright sectional boiler and burning hard coal is fast nearing its end, and horizontal sectional and tubular boilers are taking their place so that soft, or in fact, any coal can be burned economically. Hard coal has become so expensive that it is almost impossible to use it in greenhouse heating and make a profit. There are some very good grades of soft, smokeless coals on the market that are being used with good satisfaction, but of course none of them are as smokeless or sootless as hard coal. Pocahontas is being used by a great many growers in their hard coal boilers; in fact, some people are using it in hot-air furnaces with good results. It is a soft coal; in fact, very soft—so much so that a car of mine-run will run from sixty per cent. up in slack. It is a slow burning coal and therefore very convenient for the small grower who would naturally not be overly fond of getting up too often during the night to "fire up." Sixteen to twenty tons of such coal should be ample to heat a greenhouse of this size.

In laying out a small house that is to be used for growing plants, two walks would be necessary, making three benches on the ground. An outside bench, five feet wide, then an eighteen-inch walk, a centre bench, twelve feet wide, then another eighteen-inch walk—this would leave an outside bench, five feet wide. Of course, this is just an example as the walks should come at the purline posts so as to use the posts for shelves.

For this purpose handy brackets are obtainable from the greenhouse construction companies. The brackets are usually made wide enough to take a twelve-inch board which accommodates a haddie tray nicely, and can be used for bleaching celery later. This gives you two rows of trays the full length of your house, which should be ample space for starting and growing plants during the winter months, and for sowing the seed for outside work in the spring.

The best laid out and constructed houses usually have a shady end at the boiler shed and something along the sides, but these can be made to pay as well as the other parts of the house by growing parsley.

The roots should be started in the field and not too early, so as to have a good-sized root to take inside about the first week in September. This gives plenty of time to have a good crop of parsley ready to pick by the time cool weather sets in. In fact, there is usually a market for a limited amount of parsley at any time. The roots should be planted eight to nine inches apart each way, and watered once or twice a day for a few days till they get established, as the sun is sometimes quite hot at this time of year and the plants should not be allowed to wilt.

At about the same time, lettuce can be planted using good sturdy plants grown from seed sown not too thickly in the field about August 1st. It depends on the market how far apart lettuce should be planted. When sold by weight it is planted eight inches apart each way. In Toronto, they want a small bunch and plant it five inches apart each way, but the most popular way seems to be about seven inches each way. This will grow into nice-sized heads and can be sold either by weight or by the dozen profitably. A house of the size I am describing will hold about forty-two hundred plants, seven inches apart, but of course they should not be all planted at once. The great thing in growing green stuff for winter is to keep going so that you can have regular customers and keep them supplied; a few restaurants and grocery stores would use enough lettuce to keep a house this size going.

It is a good plan to plant so much a week so as to have the work finished in four to five weeks. Plant in the evening and water afterward, so that the hot sun will not wilt and therefore check the plants. At this time of year, five or six weeks will make fairly good lettuce, and it is always in demand, as people are tired of tough outside lettuce and glad to get nice tender hothouse grown for a change. It is said that seed sown at time of planting will make good plants for the next crop. This can be shown in a tray on the shelves and, just as the third leaf appears pricked off into other trays about an inch and a half apart each way.

It is not necessary to grow lettuce alone, as radish can be grown equally as well and profitably. Part of the house could be reserved for radish, and some sown each week so that a steady supply would be forthcoming. Care should be taken to procure good seed and not sow it too thick. Rows about three to four inches apart and seeds an inch apart is ideal, but of course hard to get just right. If sown too thick radish will go all to top and the bottom will not get very large. Eight nice-sized radishes make a good bunch which is very attractive, but, when they are small, it is necessary to put twelve or more to make a bunch, they do not look nearly so well, and therefore do not sell as readily.

By the first week in March a third crop of lettuce and fourth crop of radish should be pretty well all in, and some space on the shelves will be available for sowing seed for outside planting, and by the time the first of these are ready to prick off some bench space will be cleared off, ready to hold them.

If the whole of the house were not necessary for outside plants, lettuce and radish could be run on, but it would not be advisable to plant later than the first week in April, as by the time it would be ready to market, the weather would be very hot and these crops would not do well.

Tomatoes or cucumbers could be grown in any space not used for plants. Tomatoes could be planted any time after March first and up to the middle of April, although this is pretty late, and unless good plants were used they would not be a great deal ahead of outside ones. Cucumbers do well and can be planted later than tomatoes and grow quicker.

A good cucumber plant can be grown in from a month to six weeks, depending on how hot it is kept. But tomatoes, to make good plants for March, should be sown early in January.

The temperatures for lettuce and radish should be 40 degrees to 45 degrees at night and 55 degrees to 60 degrees in the daytime. To grow tomatoes properly the temperature should be 60 degrees at night and cucumbers 65 degrees at night, but when growing these crops as catch crops among plants they would

naturally suffer to some extent till the plants were set outside, then the temperature could be raised.

Great care should always be taken in ventilating. Fresh air is necessary to a growing plant, and unless a plant gets plenty of air it will not thrive; but on cold days especially, care should be taken not to open the ventilators too wide. In dull, damp weather it is advisable to sometimes put on a fire and raise the temperature so that the ventilators can be opened. This has a tendency to dry the air and will prevent to some extent damping off and other such diseases.

In watering, too, especially in the early winter, November and December, care should be taken not to water except on bright sunny days and then in the morning, so as to give the plants a chance to dry off before night. Watering should always be done thoroughly so that it is not necessary to water too often.

These things and the average gardener's knowledge of growing vegetables considered, there is no reason why a greenhouse 80 x 25 ft. could not be made to pay. True, it will not make a fortune for anyone in a short time, but will make a little at a time when everything is going out and nothing coming in. It also provides a pleasant pastime for otherwise *perhaps* idle hours, and does away with the handling of hotbeds for early plants. The sash for hardening off the plants can still be used to great advantage and the greenhouse planted in cucumbers or tomatoes.

These are the crops most growers figure to make their money from, as the weather is very favourable at this time of year, and it does not take much fuel to mature the crops, which should be nicely off by the time outside stuff comes on the market.

C. Fretz: I am going to try to stick close to this subject of "Can you make a greenhouse pay 25 x 80 ft.?" Our friend has told you how to run it and I think rightly, but he has not told you how long it is going to take you to pay for it or what it is going to be like. A greenhouse 25 x 80 ft. to my mind is not the right width for any grower to build. I would suggest to everyone who is thinking of building a greenhouse to build it 40 feet wide and as long as your purse will allow you to.

I do not think that a greenhouse to grow vegetables in ought to be narrower than 40 ft., and if you want 2,000 square feet, you get a house 50 ft. long. That may not be a nice-looking house (I admit it is rather dumpy), but if you want to add to a building, you do not want to build on the side, because every time I built a greenhouse and did not provide for extension to that building on the end, I got into trouble. I built a small greenhouse eight years ago, 20 x 40 ft. It was built by local help. To-day that greenhouse stands right where it did then, and is filled with ferns. At the end of it is another greenhouse I built that is 100 x 25 ft. wide; at the end of that is another 40 x 125 ft., a peculiar looking house. If you build a house 40 x 50 ft. you can add to it. You can take the end out of that house and set it out just as far as you like, and eventually you will have a house which will be whatever size you want, and you will have it all in one straight house. Why I say this is, because I do not know of anyone who has gone into the greenhouse work with any knowledge of gardening and who has gone at it in the right way who has made a failure, but about ninety-nine out of every hundred who went into the poultry business have made a failure of it.

So much for the size of the greenhouse. I took this greenhouse just as low as I dared. I took it to cost $3,000. Some who start imagine that they can do a lot of that work themselves. In that case, the moment I stopped to do work and took my help away from other work, I lost more than I saved in

building that house. I can earn far more money than I can in building a greenhouse. All I do is the cement work and possibly help to pipe it. Your house costs you $3,000 to start with. $3,000 at seven per cent. interest is $210; taxes, if you are taxed according to the way I am, will be about $30; depreciation at fifteen per cent. will be $450; coal will be twenty ton at $16 a ton, amounting to $320.

Anyone who is going to try to take a small greenhouse and fire it with soft coal wants to be prepared to jump out of bed at night and fire. I have done it and kept it up for weeks. My man fired until ten o'clock, then went to bed, and I got up at two or three o'clock and fired until morning. I said I would either get a house large enough to have a night man or get out of the business. So I say hard coal and nothing else for a small house. Then you can make your fire at ten o'clock and it will carry through nicely until morning.

Your fertilizer for that house, I have put down at $30, but that is scarcely enough. We had better say $50. Your labour for that house: what can you take care of that house for ? Mr. Sanderson has told you if you want a little recreation you can go out and work in the greenhouse. No fruit and vegetable growers that I know, if they are taking a fruit and flower paper, a daily paper and a church paper, and read them all, need to have any recreation in a greenhouse in the winter. They want to have that time to read. I put expenses so far down at $370 per annum. I do not think there is a man on even a fifteen acre place that cannot afford to keep a man all year round to help him. I just charged $5 for water. That might be a little low, but I think it is about right. You will find that your sum total for that is $1,060. Now that is running that greenhouse just about as economically as you can.

N. Sanderson: We have 50,000 feet under glass, but we are taxed on our boiler house.

C. Fretz: I would suggest following out the routine I have been doing—that is a crop of tomatoes for Christmas, and I aim at a fill-in crop of lettuce, then I make sure if I can for that spring crop of tomatoes. You can have 400 tomato plants in this house, and I think five pounds of tomatoes to a plant for a Christmas crop is a fair crop planted 14 x 22 ft. I do not think there are very many of us that are getting much more than that. We have been getting it. If you will get the tomato plants just right so that you will get your set before the dark days come, you will get a set on your first two or three trusses. Never mind your top trusses, you are going to get your five pounds of tomatoes, and if you miss your three trusses, you are not going to get much.

We got spoiled a little bit during the war on the prices. You know when you get as high as sixty-five cents a pound, which was $9.75 a basket for tomatoes, it rather spoiled us; but now we have to come back again to pre-war prices, and my price has been running for that Christmas crop between twenty-five and thirty cents. Scarcely are the tomatoes all off the field before the Toronto market will pop up on greenhouse tomatoes and go from thirty-five to thirty-eight cents a pound, and all at once it will go down just as quick. That is when the Southern tomatoes come in, and I hope that the resolution which comes up for our protection on vegetables and fruit will go through. If we get that, I believe you are going to see greenhouses go up, because this country needs them. If we grow the crops here and give the people just as good or better than that from the United States, they are going to buy them. The first hothouse tomatoes that I grew eight years ago I took to St. Catharines, and Mr. Balson who runs the store while he looks after the wholesale business said: "We cannot handle these tomatoes at what you want for them, at twenty-five cents a

pound. We are getting Southern tomatoes for fifteen cents a pound." I went to Mr. Balson and he asked me to unload them. A week after he telephoned me and told me to bring some more tomatoes. You get that crop of

Forced Rhubarb.

tomatoes, 2,000 pounds at twenty-five cents a pound, and you will get $500 for your tomatoes at Christmas. You can have 200 dozen lettuce and if you get seventy-five cents a dozen it makes $150. We do not sell lettuce by the pound.

MR. GUTHRIE: We sell lettuce at Sarnia and we get thirty cents a pound. We run about two pounds to the foot.

C. FRETZ: We get practically three heads on the square foot, and we get six cents a head, that is eighteen cents. What do you get per square foot ?

MR. GUTHRIE: We get sixty cents.

C. FRETZ: You are beating us. I am going to double the tomato spring crop, ten pounds to the plant.

If you are an early vegetable grower, you can put shelves in there and can start your spring crop of tomatoes. At the present time I have 11,000 tomato plants that have been pricked out sixty to a flat, and they are potting them in 2½ inch pots.

Then we have three houses of lettuce, one of roses, one of carnations, one half carnations and half propagating beds, propagating our carnations and common plants and a few bulbs we are testing out. You can use the shelving also for growing lettuce plants.

You cannot afford to have your ground space lying idle a minute. You want your plants on shelves until it comes to the final and last time of putting them in 4-inch pots, and if you are just a little ahead in your house with lettuce, when you take it out, in goes your tomato plants, and you will be ready the moment the last head of lettuce is out. In one day's time you will have your house planted with tomatoes. It can be done, quite easily.

We want a tomato plant that fills up a 4 or 4½ inch pot. I like to get them in the first of March, but unfortunately this year we have been making a change in our greenhouses, putting in a central heating plant and we could not heat our tomato crop properly, not because of the lack of being built right, but on account of putting a new boiler in. Last February I built a house 40 x 125 feet. It was finished about March 1st, after severe cold weather was over, requiring much less fuel. It is heated from the central heating plant. I have repeatedly told the greenhouse men to pick out the early vegetable men and sell them greenhouses, because they are the men that will make a success.

N. SANDERSON here asked why Mr. Fretz put fifteen per cent. depreciation on the house, adding, "I would not want to build a house that would not last more than seven years."

C. FRETZ: Would you not rather have fifteen per cent. taken off, and if at the end of seven years it is still good, you are in that much. I have a greenhouse that is seven years old. I have another one just completed, and if I gave the first one two coats of paint inside, I will defy you to tell the difference.

N. SANDERSON said he did not want anyone to go away with the idea that a greenhouse depreciated fifteen per cent. per year.

C. FRETZ: You have always got to take into consideration that you might get a hail storm. What is better business than laying by a little reserve ?

JOS. A. N. LEFEBVRE contended he had a practical demonstration of the value of light in his cellar. He got the idea last fall that the consumer could just as well cut the celery half an inch from the core and plant that core in the dirt. I was thinking, he said, if that would work, I would use it as an argument. I took the roots and put them in my cellar. Where the light hit the cellar the celery is about 13, 14 or 15 inches high. In the back of the cellar it is only 2 or 3 inches high. I have been wondering if that is purely attributable to the light, or is it perhaps that one end of the cellar is warmer than the other.

RESOLUTION REGARDING THE TARIFF.

W. J. COOKE: The committee on the tariff question thrashed this out and have brought for your consideration this motion:

"We the vegetable growers in convention assembled on February 12, 1924, realize from reports from all parts of the Province that our grocers, especially those engaged in supplying vegetables during the winter and early summer seasons, are gradually being driven out of business by the importation of cheap field grown products of the semi-tropical parts of the United States.

We therefore request the Honourable Minister of Finance to help us obtain some relief from these disastrous conditions.

Knowing as all Canadians do that money must be obtained through taxation to carry on our governmental activities and pay our portion of the Great War, we think that those most able to bear the burden should do so, and therefore

petition the Minister of Finance to impose a ten per cent. luxury tax in addition to the present tariff on our vegetable and fruit imports, which are undoubtedly a luxury in the season during which we find competition impossible."

Mr. Cooke moved the adoption of his report, seconded by Mr. Fretz. Carried unanimously.

"WHAT IS BEING DONE AT THE O.A.C. FOR THE O.V.G.A.—PLANS FOR THE FUTURE."

Prof. A. H. MacLennan, Guelph.

When the change was made two years ago in the Department of Horticulture here at the College it was found that vegetable growing, at least from the commercial standpoint, had been practically discontinued. The policy of the Department at that time was almost entirely directed towards plant breeding and study of laws of heredity. In taking hold I found that there were about 700 apple trees in the seedling rows, and a considerable amount of work was being done on flower breeding, and some along the production of anthracnose-free beans. The policy at the present time is to develop as much as possible these various lines of breeding work, and also to take up again work which had been laid aside for a year or two. This included completing the breeding work on tomatoes, celery, indoor cucumbers and lettuce. These have been pushed along and we have now at hand a considerable stock of seed in tomatoes, lettuce and beans which are being distributed this year to commercial growers for final testing. Commercial methods have again been put into practice in the Department and a great effort has been made to have men in charge who know how to do things as they would have to be done by the commercial grower.

At the time of the change it was deemed necessary by the Department that I should still carry on the extension work both in vegetables and in potato seed certification. While this has meant an immense amount of work, still we have accomplished it as we have been able to obtain the services of practical men to handle the general growing work at the College. As the grant was cut down for vegetable extension work we were not able to do the amount that we would have liked, but this year we hope to be able to put the work back on the former basis, as we have succeeded in obtaining the services of Mr. F. W. Presant as assistant in vegetable extension work.

This year we intend to do considerable testing of newer varieties in the various commercial sections, such as "Golden Acre" cabbage, our new cross-bred tomato called the "Canadian," and celery seed obtained from all of the best known sources on both this continent and in Europe. We are hoping, also, to get to work on celery seed production from the strain that does best in this test. There is a good deal of work also to be done on diseases and insect control. While this has been done in the past there seems still a good deal of work to be done along lines of control of celery blight, onion blight, cabbage and onion root maggot and tarnished plant bug in order to further the vegetable growing industry in this Province.

We have made arrangements with Mr. W. R. Reek of the Experimental Farm, Ridgetown, whereby one of our men from the College will take charge of

the vegetable work during the summer there, and in that way we will be enabled to do our work under conditions which will give us results more satisfactory to the commercial man.

We are hoping to get more data on cold storage problems. A certain amount of work has been done at the Brighton Cold Storage; we are hoping to be able to carry on also at Guelph. There are four problems at the present time to be worked out:—(1) What to store. (2) Condition before storing. (3) Best temperature of storage. (4) The effect on marketing and distribution of the crop.

There is considerable work to be done on markets and market packages; whether any methods of marketing can be worked out that will prove more satisfactory than at present and also using more standardized packages.

Some experimental work which we have started is along the lines—first, of crop mulching on tomatoes and celery using either strawy manure or paper; this is something that has been used to considerable extent in Hawaii on pineapples and may prove of value here; secondly, the effect of electric light on plants. We have started on this work this year largely to get a more definite idea of what we could do in that line; results so far have been interesting and would seem to give promise for the future.

Apropos the question put by Mr. Lefebvre *re* the beneficial effect of electric light on plants, Mr. MacLennan further stated: "I must disagree with Mr. Fretz on one question, and that is the amount of sleep a plant requires. Most plants in this country do not get the length of sunlight in the day that they should have. Our tomato crop originally comes from conditions where there is a long period of sunlight, a long day, and we have found that if we can lengthen the daylight, we are just going to make that plant grow the more. We have worked out in past years in this regard the fact that electricity, in one form and another, will develop a plant." Mr. MacLennan then outlined some experiments they had worked out at Guelph which proved this conclusively.

Mr. J. Lockie Wilson assured Mr. MacLennan that he would have the backing of the Vegetable Growers in urging upon the Department the experimentation in greenhouse work at Guelph.

STAKING TOMATOES.

C. Fretz, Vineland.

I grow my field plants in the same way as I do those for the hothouse, only I take them out in the cold frames and harden them off before they go to the field, and we save the greenhouse space for growing crops. Our field tomatoes we have grown in the 5½ x 5½ ft. or 5 x 5 ft. bottomless boxes, and when they are ready to transplant, about the first to the 15th of April, we make up our hot beds with manure, and then let the first heat get out of them, then we set the empty boxes in a bed 6 x 15 ft.—it will take 350 of those boxes. It will take three of those frames for every 1,000 plants that you grow. That makes an expensive plant, but I have been growing each year about 25,000 to 35,000 of those plants. I do not grow any late tomatoes.

When you put the plant in the bottomless box, unless you happen to run into a lot of hot weather, which we seldom get just then, you should grow that plant with hardly any water at all, and the less water you use on a tomato

plant the better plant you are going to have. If you can so time your plants that you get these ready by the 24th of May, that is the time we figure on going to the field, and we do not vary much. My men understand there is no holiday on our farm on the 24th of May provided we can plant tomatoes, because that is the day set for beginning to plant them. We put out last year 15,000 staked tomatoes in the field adjoining Vineland Station—twenty rows, 800 feet long.

I have full confidence in staked tomatoes. I made the year before a weekly trip into Toronto, and I watched a little garden across the Don that had about twenty-five or fifty staked tomatoes in it and I never saw anything nicer, and smoother than they were. The man who owned that lot came to Vineland each week, and the tomatoes as a consequence were not picked until he came back over the week end, so that those tomatoes stayed on the vines one week. They were smooth and round and just the thing we like. If we were going to grow tomatoes this is the kind we should try to grow. If you are going to work out to that ideal which you must have, you want to find out how to do it and how to make the most money out of it.

I planted a little closer than the Experimental Farm—14 inches in the row and 3 feet 6 inches the other way. I will start in with the advantages and you can ask me afterwards on the disadvantages of it. The first advantage is that if you have an acre of staked tomatoes you will have as many plants on that acre as you will have on three acres not staked. As near as I can tell, they will be about a week ahead of the same tomatoes in the same field that are let run over the ground at will. You can cultivate that acre in one-third of the time that you would your three acres.

Then I like to get my fertilizer in in the fall, so that it will be in pretty nice shape in the spring. If you draw your furrows through there, and you set them 14 inches apart, you can set those tomato plants with about five people in the field just as fast as two teams with two drays can draw them out. You have to be pretty close to your hotbeds or else you cannot get them out fast enough. It is a rapid way of planting, a nice way of cultivating, and a nice way of picking, because you can go between the rows and see just what is ripe and you pick them quickly, and you will get them about fifty per cent. smoother.

In the United States, their average on canning factory tomatoes in 1923 was 123 bushels to the acre at forty cents a bushel. What did they get for growing those tomatoes? If you have 8,500 vines trained to the acre and if you do not get ten pounds to the vine, you should get it and you will get it, because we have statistics here from the Experimental Farm and it will bear me out in this. I could not keep my staked records separate from the field tomatoes this year nor could I keep the labour separate, but we have data on this that will bear us out as to what has been grown on the Experimental Farm last year on the staked tomatoes and that is about ten pounds to the plant, or a little better. We have good reason to believe that if we can grow ten pounds in the greenhouse we can grow it in the field. Growers at Vineland claim they have grown 1,000 bushels to the acre. I would not say you can grow that off the staked tomatoes, and I do not believe you can. We started picking tomatoes about the first of July. These tomatoes were smooth and the first ones went in with the greenhouse tomatoes, at the hothouse price. Then we followed up with the staked tomatoes selling at $2.50 a basket. You all know that last year the man who was fortunate enough to have a crop of tomatoes early, got the price. I was in Port Carling for holidays, and I saw our tomatoes come up there, saw them unpacked and the dealers there would pay fifty cents to $1 more a basket for the staked tomatoes than they did for the others. Now

Mr. MacLennan said: "Advertise your stuff," and certainly if you have a good thing get out and advertise it, and if you have not got a good thing, get it. There is such a difference in staked tomatoes and tomatoes grown on the ground. I mean for the early, I would not put much stress on that for a late crop.

Tomatoes Grown Outside on Stakes.

The price in the last three or four years has broken around the 10th of August, and you should get in with your crop before then, if not, you will not get high prices. I grew Bonny Best and Mr. Eborall's seed of John Baer, and I got first prize for that district on tomatoes, and I also had some hothouse varieties.

We picked those tomatoes all summer. Whenever the truck went out later on with peaches, the customers asked for tomatoes. They were smooth and nice and easily picked. Of course the price was cheap then, but we had made our money on it, so it did not make so much difference.

Q.—Did you find you could make more money all season than off the others?

C. FRETZ: Your crop is not so much more, but it is the time when you can get it off so much quicker. That is where you gain.

A MEMBER: I never sold any tomatoes in Toronto under forty cents, when you could buy other tomatoes at twenty-five cents.

C. Fretz: What we want now is to have more intensive farming. Our taxes have got so high in the Niagara district that we must grow more. Suppose you have two acres of staked tomatoes, that would be equal to six acres of other tomatoes. Then you have four acres for something else, and you can change your ground for growing tomatoes oftener. Do not keep on growing tomatoes on the same ground. If you want to grow a lot of tomatoes and have a lot of fruit, you are soon going to be cramped for ground that has not grown tomatoes, but if you will grow on stakes you can take another strip next to it.

Answering a question, Mr. Fretz said he used a ¾ x ¾ inch cyprus stake every ten or twelve stakes, and he put a ¼ inch x 7 feet iron stake between. The reason he did that was that the iron stake did not have enough support in the ground and the row would swing. He said: "I stretch a wire along the top, and every tenth stake is a wooden stake; you have nine iron stakes to one wooden stake. If you use a wooden stake, the life of it will only be about two years and the cost of that wooden stake will be about three cents to five cents. The wooden stake and the iron stake are tied to the wire at top.

Q.—How do you thin?

C. Fretz: Just the same as in the greenhouse.

Q.—How high do you let yours run up?

C. Fretz: I had intended to stop mine at about five or six laterals, but the price remained so good I did not have the heart to do it. I picked tomatoes until the frost came.

Q.—About how far forward will those tomatoes be when you plant them in the field to get them as early as that?

C. Fretz: I like to see a plant when it goes in the field as thick as a lead pencil as they will not break off so easy. I aim at growing that plant cool and dry. We used to take and put the ground in those boxes and have them on beds and slip them off in the bed, and we found that took a lot of work. Now we fill the bed with the collapsible boxes, and we put them in the bed and we take a scoop shovel and fill the earth in. My plan has been every year to get a carload or two carloads of strawy manure and put it down for these hotbeds, and then to put on soil taken from some place where I have not been growing vegetables. Put about 2 or 3 inches of that soil over the manure before you put the box on. As soon as those tomato vines come out of there on the 24th of May, our cucumbers go in, and we have a good early crop of cucumbers on that plot. Then we take that soil and gather it all up as soon as the cucumbers are finished and that is our reserve again for our boxes for the next year.

We plough a furrow, drop the plant in, and a man follows with a hoe and draws the soil round it. We break the boxes and throw them in the furrow. I get them from the Glover Basket factory at Freeman, and they cost $5 a thousand.

Mr. Fretz then gave the two attached tables to the meeting which he said had been given him by Mr. Robb of Vineland. He drew attention to the fact that the Horticultural Experimental Farm at Vineland is down on the lake shore, and they are a week or ten days later than at his (Fretz's) farm, this being due to water conditions. He could not see how we can go on growing tomatoes for thirty-five cents a bushel and sell them to the canners and make any money on them.

Q.—In gathering up leaves in the fall and letting them rot is it a good thing to put that leaf mould in the hotbed?

C. Fretz: I have never done it. Watching the markets has been a very profitable proceeding for me. It is worth while to work up a trade and then to

supply it. Get the people used to your product and back it up. We produce a good thing, but we have not backbone enough to ask the price we should receive for it.

TABLE NO. 1.—STAKING AND PRUNING EXPERIMENTS, 1923.

Variety	Picking Dates			Total for Early Season until Aug. 10	4th Period Aug. 25	5th Period Sept. 4	6th Period Sept. 26	Total for Late Season Aug. 11–Sept. 26	Total for Whole Season
	1st Week July 27	2nd Week Aug. 3	3rd Week Aug. 10						
180 Plants				lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Norfolk (new variety from Simcoe	7.6	39.8	106.9	154.3	472.2	669.5	806.0	1947.7	2102.0
B. Best	8.8	38.6	82.6	130.0	487.7	430.8	806.5	1725.0	1853.9
Earliana Stokes	30.9	106.02	162.4	299.5	694.6	538.8	608.5	1841.9	2135.4
Atlantic Prize	11.1	54.9	95.2	161.2	543.9	679.0	853.0	2075.9	2237.1

This table is only a comparison of the four varieties as to yield and season of best pickings.

TABLE NO. II.—STAKING AND PRUNING EXPERIMENTS, 1923

System of Pruning and Training	1st Week July 27	2nd Week Aug. 4	3rd Week Aug. 10	Total for Early Season until Aug. 10		
				Season until Aug. 10	Yield per Plant	Yield bu. per Acre
240 Plants	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Staked and trained to one stem, 18 ins. x 4 feet	34.9	109.8	152.4	302.1	1.26	152.4
Staked and trained to two stems, 18 ins. x 4 feet	23.5	82.5	163.4	269.4	1.12	135.5
Untrained, 3 feet x 4 feet	....	47.2	131.3	178.5	.74	44.7

System of Pruning and Training	4th Period Aug. 25	5th Period Sept. 4	6th Period Sept. 26	Total for Season		
				Yield per Plant	Yield bu. per Acre	Total lbs for whole Season
240 Plants	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Staked and trained to one stem, 18 ins. x 4 feet	538.7	497.5	555.0	7.8	943.8	1883.3
Staked and trained to two stems, 18 ins. x 4 feet	715.4	660.7	626.5	9.55	1155.5	2272.0
Untrained, 3 feet x 4 feet	944.3	1160.4	1885.5	16.9	1022.4	4168.7

Staked Plants, 7,260 per acre. Unstaked Plants, 3,630 per acre.

As the price fell about the 10th of August, all yields before this date are classed as early.

It will be noticed that the total yields are approximately the same. If the single stem plants were planted a little closer the yield would have been larger. But there seems to be a maximum yield beyond which the number of plants per acre does not influence.

BEST WAYS AND METHODS OF WATERING A MARKET GARDEN.

W. J. Cooke, Cataraqui.

To speak on this subject, so important to vegetable growers, I must consider those gardeners who are just starting in the business and who will gradually become aware that irrigation is a vital part of their equipment, and will be searching for light on the subject. To give them intelligent information, a history of our own efforts would perhaps be most helpful.

In 1905 we took over our present property as a market garden. It was a good garden, but equipment for progressive truck farming, was such as is found in most gardens that are on the market including a well.

We started in a small way and "canned" the water from the well to our hotbeds. This was practically all the watering we did, and it was a strenuous job. As our business expanded we erected a tank on the highest part of our barnyard into which water was pumped by a windmill from our well. We had water piped to stand pipes and taps fed from the tank. These taps were placed at convenient places in the yard, and much labour was saved. The trouble was that when dry weather came our well would go dry, and we were short of water.

Our next effort was to drill a well, and after the drillers and ourselves had had enough of it, we had 3 barrels per day at great expense.

Onion Crop showing the Benefits of a Sprinkler System.

About this time, after several years of heavy manuring and good cultivation, we had come to the conclusion that for good annual returns we must have irrigation for many of our most important crops, which generally were the best money makers.

Our ideas of irrigation were extremely hazy, and in searching for ideas we came across an address given by Mr. Macoun of the Dominion Farms at our Convention, and contained in the 1908 report. Thus the Ontario Vegetable Growers' Association started us on the right road to greater success, and I owe a debt through it to those who are searching for scientific knowledge as we were in earlier days.

This description of Mr. Macoun's of the Skinner Irrigation System appealed to us, and we began to apply it to our conditions. The water supply was the great puzzle. We put a cement dam across the bottom of a sharp depression that ran through the middle of our garden. At the top of this gully we had a spring which kept us in water until perhaps July 1st, but this was when we needed water in quantity. A half mile distant was a creek with plenty of water and we decided to pump from this to the reservoir formed by the dam which would hold 200,000 gallons. Having no electrical power available we put a 6 x 10 double-acting pump and a 6-horsepower gas engine on the banks of the creek. A large windmill and good heavy windmill pump was also installed, with the gas outfit. This windmill is put in action early in the season and forces water through half mile of pipe into the reservoir whenever the wind blows. This gives us a cheap water supply. The gas engine is used only when extra water is needed which in a very dry time is practically always. This half mile of main line is 2-inch galvanized pipe. It will take about 30 gallons per minute. Three-inch pipe would be better, but is much more expensive.

We were not so sure of its success as we are now, and the investment seemed enough at that time. If installing again, I would use at least 1,000 feet of 3-inch pipe next to the creek, as it would give us more water with less power.

The outfit on the bank of the reservoir which pumps directly into the irrigation or nozzle lines, consists of a 3-horsepower gas engine and a 5x 5 inches double-acting pump. This gives us from 30 to 40 gallons per minute against 30 pounds pressure. Our main line for conducting the irrigation water from this latter oufit is also 2 inches and extends along the side of our garden. Every 50 feet a plug is placed in this line at installation so that a nozzle line may be taken from this main line to any place in the garden where we want a nozzle line; we rise from our main line with a 1½ inch riser about 8 feet high. In this a hand valve is placed to control the water and allow it to go into whatever line we desire. A patented turning union is placed in the horizontal leading from the standpipe, and then irrigation nozzles are placed from that every 3 or 4 feet to the end of the nozzle lines. These nozzles are installed in holes drilled in the pipe by a special drilling machine sold by the Skinner Company. A spirit level on the machine helps you drill all holes at the same angle so that all nozzles throw in the same direction. The water coming from these fine nozzles under pressure is in a fine stream which breaks as it is forced against the atmosphere and falls as a fine spray, and along the same rows paralleling the irrigation lines. This line is allowed to rotate by the turning union and any area may be watered 25 feet from the nozzle line and on each side of it.

Our method of putting up our nozzle lines consists of erecting three telegraph poles in the 250 foot stretch across our garden. One pole is placed at each end of the line 4 feet in the ground. Eight feet behind it a 4-foot hole is dug 4 feet deep. A cedar dead man 4 feet long is placed in the bottom of this hole

with an iron rod through it and extending to the top of the ground. From the eye in to the end of this rod to the top of the post No. 4 twisted wire is used. This is the brace for the post. The whole is filled with heavy rock well earthed in. The post is well tilted away from the strain and towards the brace, because if your post becomes tilted towards the strain it will not hold. Both ends posts are treated alike. One post in the centre of the field is put in four feet and rocks put in for side sway only.

No. 4 galvanized wire is stretched from the top of one second post across the field, brought through a pulley at the top of the other end post and drawn taut with the aid of three men and a double tackle. When taut, the end of the No. 4 wire is fastened to a ring near the bottom of the pole so that slack may be taken up at any time.

No. 14 wire hangers are fastened to this No. 4 wire every 15 feet and to the other end of these hanging wires hooks are fastened in which the nozzle line rests. The hanging wires are adjusted so that the line of pipe hangs level and above the horses' backs. Temporary lines may be attached at the plugs in the main line for any part of the garden that has no permanent line. A floating line is kept in readiness for this.

This line is laid on blocks for low growing crops and put on short stakes for taller crops, like cauliflowers.

Some special points of interest on our installation. If we had tried long distance pumping directly into our nozzle lines we would have required much larger mains and heavier power. Our natural reservoir saved this.

We found trouble with creek water in summer. It clogged our strainers in the turning unions. We took them out and put large strainers on the intake.

We found flush valves on the far end of the nozzle lines of value to clear out dirt and residue.

We found all metal check valves a necessity in our intake line, but check valves with rubber or leather practically useless. Keep your pressure up to 30 pounds if you must shut down one line to do so, as a light pressure gives uneven watering. Keep a water relief valve on your pump to take up extra water.

Buy only standard goods rated to give more water than you want and repairs easily obtained are a great factor.

Some Special Crops for which we Especially Need Irrigation

It is impossible to water hotbeds and frame crops, if used extensively, by any other method but irrigation. Lettuce followed by cucumbers is a favorite frame crop with us. When the cucumbers start to bear with manure below and a hot sun above—a condition under which they thrive—it requires a great amount of water and pays handsome returns for irrigation.

Celery grows to perfection on high land under irrigation, and many market gardeners who have no muck soil now grow this money crop on upland soil that formerly was useless for this much prized vegetable.

A constant supply of summer lettuce is made available to the irrigation gardener. Under our conditions it was formerly almost impossible to germinate the seed and grow a good crop during our hot months. Now we have a constant supply. Irrigation simplifies the planting of the transplanted onion crop and makes double cropping possible. Formerly our strawberry land was never double cropped. Now it is followed by a sowing of pickling beets which find a ready demand at a good price. In dry years we find irrigation very valuable

on the early fall cauliflower crop. We can bring it on the market earlier than otherwise possible, and a much better sample of heads.

One great value of this system of irrigation is that falling as it does in a fine mist it does not pack even the heavy soils, and may be used at any hour—morning, noon or night.

The heavier the soil the farther apart the nozzles are placed in the line. Sandy soil will stand as close as a 2-foot spacing and heavy soil requires a 4-foot spacing of the nozzles. The present cost of this system would vary from $300 to $400 per acre without pumping outfit for water supply. This must be figured separately, and the overhead divided against the number of acres irrigated. With water supply fairly handy a man might irrigate five acres with a pumping plant costing $500, and the cost per acre of $100. Thus the entire cost per acre would be only from $400 to $500. Interest and depreciation at 15% would give an annual overhead of $75 per acre and as our garden crops are in many seasons doubled in value, and in fact often saved from entire failure by irrigation, it does not seem a heavy price to pay for crop insurance.

After many years of using this system I believe its greatest asset is a psychological one. The fact that when cloudless skies and hot suns continue week after week, we are not wasting valuable energy worrying and wondering if a crop now invested with a great expense in labour, fertility, and overhead, is going to prove a financial disaster.

You have crop control, and it inspires you to use more energy, more cultivation, more fertility, more careful spraying in growing a crop, and it is thus alone that large crops that are a financial success can be produced.

The great point which as an irrigation enthusiast, I wish to impress on you is, that you will never grow the best crops or secure financially satisfactory results, if the fear that unfavourable weather conditions will destroy your efforts prevents you from making the heavy expenditure that must precede any valuable crop. After all other demands have been met for a successful harvest, irrigation is the determining factor.

Q.—How much water per acre did you figure you required per season?

W. J. Cooke: In an ordinary season you would need about 30,000 gallons per acre per week, as long as the dry weather lasted. You want to be sure that you have an inexhaustible supply of water before putting your plant in.

Q.—Do you think a drainage system is beneficial with the overhead irrigation system?

W. J. Cooke: No doubt it is especially beneficial with irrigation because if you irrigate thoroughly to wet the soil, then perchance it rains, you want your underdrains there to take care of it.

Q.—In watering, which do you think the best—to water not very heavily and often, or heavily and not so often?

W. J. Cooke: I believe in watering well when you water for the reason that if you just drop two or three inches there is so much evaporation and your plants do not get the benefit of the water.

In answer to another question, Mr. Cooke said: Take plants grown in hot beds, place them out in May; they are rather tender yet, and if they get a frost it is apt to affect them, and I have gotten up early in the morning and turned the irrigation on. If you coat a plant with ice it will not freeze.

In reply to another question, Mr. Cooke said he used the ordinary galvanized pipe.

Mr. Lefebvre: You would advise irrigating on clay loam for growing celery?

W. J. Cooke: Yes. You will not put your best energy in a crop, you will not put the proper fertility, the proper cultivation, give it the proper care, buy the high priced seeds, do all these necessary and expensive things for a big paying crop, if you feel down in your heart that you only have three chances out of four of beating the weather. If you absolutely have proper assurance that every time you will get proper returns from that investment you will go ahead.

Q.—Do you think it would pay on cabbage?

W. J. Cooke: The system is used more extensively on the Seabrooke farms than anywhere else. They raise from 600 to 700 bushels per acre of early potatoes. Early cabbage would pay, but it is a question if late cabbage is a high enough money crop to use irrigation on.

SUCCESSFUL GROWING OF HEAD LETTUCE

Cecil Delworth, Weston R. R. 1

When we discuss the subject, "Head Lettuce", it is my belief that we are dealing with a profitable field of endeavour, which has to my mind, to a greater or lesser extent, been neglected during the past.

My reason for thinking as I do is that with the exception of a short period in the early part of the season, we usually find our markets bare of anything in the nature of a quality head lettuce. Lettuce of a kind there is in abundance; much to our sorrow there is often too much; but really high-class head lettuce seldom fails to sell at a profitable price. It should be our aim to supply this need from early spring until late in the autumn.

If it were an established fact that for any specific reason or reasons it was absolutely impossible under any circumstances to produce a high grade of head lettuce over this period of time, then we could not charge ourselves with neglect. My experience has been that from continued experimenting and endeavour we can be assured of a considerable degree of success. Given the same attention that celery has had during the past few years I believe head lettuce will rank second in importance to but few of our money crops. In proof of my statement let me say that during the past year in our own business our turnover from outside head lettuce came very near equalling our turnover from celery. We usually grow between sixty and seventy thousand celery, prices last year ranged from $1.15 to 40c. per dozen, while prices for lettuce ranged between 40c. and $1.60 per dozen, the latter price being for he earliest crop started under glass, and matured in the open field. The variety used was New York or Wonderful. Aside from the immediate returns that we may receive from the lettuce crop, I believe it would be a good principle to devote a certain percentage of our land to the work of producing a crop that sells readily, thus, to a certain extent, reducing the amount of land and effort devoted to the culture of crops that have shown a tendency to glut during the past two or three years. I do not offer head lettuce as a solution for gluts, I merely suggest that it is a crop that would find a ready sale in our nearby markets providing we as growers can produce a product sufficiently good to meet the approval of the public. I believe the demand will increase, for from my own observation I believe that a light salad, fruit and milk diet is gradually replacing the old-fashioned boiled or roasted dinner, especially during the summer months.

Physicians tell me that lettuce is rapidly gaining favour as a corrective food. Spinach has long been called the broom of the stomach. I understand that lettuce is now being called "The Vacuum Cleaner." Let us see what historians can tell us of the history and origin of lettuce. We are told that lettuce is a native of Asia; that it has been in cultivation between two and four thousand years. We have positive historical reference to its culture five hundred years before Christ. We are told of its use as a febrifuge or fever remedy during the time of the Romans. We are also told that it was first cultivated in England during the reign of Queen Elizabeth in the year 1562. Within fifty years of that time history mentions at least eight different varieties (they have been increasing rapidly ever since). There are well over fifty to-day possibly one hundred and fifty. One seedsman I know of lists nearly forty, many others list upward of a dozen. How are we to classify this large group of varieties.

Citrons.

If you will allow a little leniency I think I can safely divide the whole of that mass of names into four main classes. Firstly: The loose head varieties, commonly described as leaf lettuce, such as, Grand Rapids Forcing, Early Curled Simpson, Black Seeded Simpson, Early Prize Head, and a number of others. Secondly: The Butter Head varieties, this class embraces by far the greater number. Into this group I would place Big Boston with all its variations, May King, Salamander, All Seasons, Cabbage Head, All Heart, Deacon, and many others. Thirdly: There are the Crisp Heads, to this class belongs the now popular Los Angeles, New York or Wonderful, the old Nonpareil or Hanson, Iceberg, and some others. Into the fourth and last class I would place Cos lettuce. One well-known English seed house lists some fifteen varieties of this type. I might mention here also the Chinese Cabbage or Celery lettuce; however, I am not prepared to say whether this vegetable is lettuce, celery or cabbage; it is used, I believe, as all three according to the consumer's particular craving.

During the past three or four years we have in our own business tried many varieties and strains of head lettuce. Hoping that the results of our experiments may prove of some value to you, I will give you a brief synopsis of them. Of the butter heads, we have tried and discarded many strains of Big Boston. This variety undoubtedly possesses merit. When grown to full perfection and free from tip-burn it is certainly a very fine head lettuce. On our own

soil, a sandy loam, the variety never failed to head solidly, tip-burn was our reason for discarding.

Perhaps very few growers here this evening have not had some experience with the culture of Boston head lettuce. With the exception of a few of you who may be favoured with that indefinable mysterious soil and location which appear to be necessary to the successful culture of this crop, I think I am safe in assuming that the most of you will agree with me when I say that it is my belief that a field of Boston head lettuce is the most exasperating, disappointing collection of trouble and cussedness that a gardener can form an acquaintance with.

How many of you can recall the time a few years ago when Boston head lettuce was in the heyday of its popularity? Can you recall figuring out how many heads there were to an acre, planted, say a foot apart? Nearly fifty thousand. We were wont to allow fifty per cent. loss due to misses, heart rot etc., we then had approximately two thousand dozen. Granting that it was possible to raise two crops per year we find that we have four thousand dozen per acre per year. Even in pre-war days good Boston head would command a dollar per dozen price. To state it mildly we were thus left a very handsome margin of profit. So we grew a patch. With some, once was enough; others of us persisted in our gold-brick, get-rich-quick convictions and continued in our efforts. Occasionally a fair degree of success was obtained but owing to its great failing, tip-burn, its culture became less and less. In fact it became a sort of joke with most of us. I believe that the marketing of tip-burnt lettuce had an adverse effect on its popularity. For this practice the growers were not always to blame, personally I have cut and packed big Boston lettuce, using the greatest possible care to see that no tip-burnt specimens were included, only to find on revisiting the store where I had sold it my case of Boston lettuce in the back-yard and an irate and hard-to-be-convinced customer behind the counter. And so we discarded Big Boston.

Salamander and Cabbage head differ somewhat from Big Boston inasmuch as they have a yellow or light green colour in place of the deep apple green of Big Boston. We have found these varieties more resistant to tip-burn than many others. They are good varieties of this class, good headers and possessing an attractive appearance. They do, however, tip-burn and to such an extent that we were forced to discard them. May King and All Heart we discarded because they did not with us form a sufficiently solid nor large enough head to satisfy our trade; also because they have a decided tendency to bolt to seed. These varieties, however, possess exceptional merit in resisting tip-burn. Here we find again the yellow or very light green characteristic in colouring. Deacon we discarded because it did not head solidly enough. It is certainly resistant to heat, possibly there are some strains in existence that might prove satisfactory. All Seasons and Hot Weather we have found to be absolutely our best kinds as a hot weather crop. I would describe them as having a medium deep shade of green for colouring, and although it is not a particularly solid header it does form a close compact head with a beautifully blanched interior. It is almost immune to tip-burn; in fact it is in every way desirable except that it is a Butter Head or Boston type, which type is not most favoured in our market; also that it does not possess the degree of solidity that we would like. We shall however, continue to grow this variety as a mid-season crop until such times as we find a crisp head that will withstand the heat equally well.

Of the crisp heads we have tried a number of strains of Wonderful, Iceberg and Hanson. The introduction of Iceberg and Wonderful marked a new era

in the culture of head lettuce. Iceberg was, I believe, the first lettuce to be shipped in quantity consignments from the south. With the introduction of Los Angeles or Wonderful the southern growing and shipping of head lettuce to northern markets increased by leaps and bounds until now it is seriously undermining the under-glass lettuce growing industry of the northern States of the U.S.A. and Canada. Just what the solution will be, is not part of my subject. I merely wish to illustrate what public demand for head lettuce has made possible. Also that it is my opinion that a lettuce of the type now being shipped from the south of us is the one we will find the readiest sale for, to wit, a crisp head. We have tried a number of strains of Wonderful and for an early crop and for the fall crop, we have found this variety, to be absolutely the best money making and the best seller. It needs little description, most of you no doubt know it. Compared to the old Nonpareil it is a much deeper green, heads much more solidly, grows larger, in fact is in every way desirable except that in spite of the claims made for it we have not found it a heat resisting variety. Planted to mature during the summer months it grows wild; forms a great big flabby head, tough, bitter and useless. If hot muggy weather prevails when it is fully headed it shows a tendency to go slimy just under the top leaf. Iceberg and Hanson we have found to be more heat resistant. As yet we have not been able to locate a strain of seed of these varieties that produced a large enough percentage of well formed heads. They are light green or yellow sorts. During the past year I have become convinced that colour of leaf has something to do with a variety's ability to resist heat. We have found almost invariably that the deep green varieties burn and go slimy much quicker than the lighter colored ones. On this theory we are going to base our experiments for the coming year. It is my belief that if we find a variety or develop a variety that will prove satisfactory for our summer months, it will probably evolve from either Iceberg or Hanson. Iceberg has a decided red tinge on the leaf that is objectionable, this however, is not of really grave importance, but a matter of education.

With Cos lettuce we have done no experimenting whatever. A neighbour however, grows a certain amount to sell retail; it has been my observation that this variety has its own share of troubles, and as I do not believe it is generally called for, we have not attempted to grow it.

Generally speaking, I believe our two greatest troubles are, leaf burn or heart rot, and the tendency to form a loose open useless head. We have in Wonderful or Los Angeles a fairly satisfactory variety for spring and fall. For the hotter months of the year I believe that it would be quite possible to breed up a strain of a more heat resistant variety such as Hanson or Iceberg, to a degree where we could be assured under conditions of adequate moisture and a sufficiently rich soil of a satisfactory, well headed crop of lettuce.

There have been some efforts made on the other side of the border to control leafburn by spraying, but the results I am told were not altogether satisfactory. I believe that possibly there is some connection between the tarnish plant bug and heart rot of lettuce. We may find some help if this becomes an established fact. However the solutions of many vexing plant disease problems, have been found in disease resistant strains of seed. Witness: "rust resistant asparagus", "wilt resistant tomatoes", "yellows resistant spinach", "yellows resistant cabbage". It is, therefore, my belief that there is much to be expected from plant selection and breeding. Even under the most trying conditions we invariably find in a patch of, say, Hanson, a few heads that have obtained

a fair degree of perfection. Are we to believe that no greater percentage of perfect heads is possible?

I need not dwell long on the cultural methods of lettuce. It requires a rich soil, and adequate amount of moisture, constant cultivation, and so forth. For the earliest crop, we sow in the greenhouse and grow on in flats, and later, transplant to the open field. It will stand an unusual amount of frost. Our first outside sowing of seed is made late in April, and successive sowings are made every two weeks until August. I would stress here the importance of plenty of room, fifteen to sixteen inches each way for Wonderful. I believe still more might prove an advantage. Grade carefully, trim well, pack neatly in a clean container, soak well with water, cover with moist paper and rush to its destination.

In conclusion, I believe the culture of head lettuce presents a very interesting and profitable field of study. I do not believe that the market is unlimited, but the man who can and will grow a quality product will find a ready sale for a reasonable amount at a profitable price. It is risky, but what profitable crop cannot be so described? I believe that as we study and try to obtain either through our own efforts as seed growers, those of our Government Experiment Stations and Schools, or those of some wide-awake seed grower, varieties of head lettuce more suitable to our climatic conditions, will gradually become as staple a crop as celery, cabbage or cauliflower.

Late Blight Rot in Potatoes.

In reply to a question from Mr. Cooke respecting irrigation, Mr. Delworth said: Sometimes we have a crop of head lettuce that is just about ready to cut. There will come sizzling hot weather and you will be afraid to water for fear that it will boil. It is a question which way to turn. If you do not water it, it is going to be useless. I would certainly water it. It may rot, but some of it may be saved, and there is always the chance that it may turn cool to-morrow, and if it does your crop will be saved. Water it at any time of the day. We have never had any trouble with watering except as above.

Q.—What size are your plants when you transplant them?

C. Delworth: We use haddie boxes, about 70 plants to one of these, and grow them until they are 3 inches high. Get a good, healthy plant. We plant them out in April. We used to be afraid at one time to set them out early, but we found that they will withstand frost.

HOW TO GROW A SUCCESSFUL CROP OF HEAD LETTUCE THROUGHOUT THE SUMMER MONTHS

W. H. Trick, Ottawa

The selection of seed is a very important point in the successful growing of head lettuce. For cold frames, I would use Early Paris Market, as it is a good header under cool conditions. For spring and fall crops, I would recommend Simon's Cabbage head and for hot weather, Hopkin's Big Boston, and Big Boston, as these varieties are a little hardier, and resist scalding more.

The first sowing should be made about the seventh of March. This sowing is to raise plants for cold frames. The second sowing should be about the twenty-fifth of March, these plants for outdoor cultivation. It is advisable to sow about every three weeks afterwards, so as to have a supply of young plants for refilling after a preceding crop has been cut. I have always found it more convenient to sow the seed in a hotbed for the first sowing, and in a cold frame afterward. as it is handy for watering. By sowing the seed thin you get good stout plants, with a good root growth, thus making it unnecessary to pick off the young plant.

In making cold frames there should be plenty of manure worked into the ground. A good watering of liquid manure, about two hours before planting, will give the plants a good chance to start growth. They should be planted about six inches apart. When watering it is advisable to water in the morning or evening, and the water should be poured between the rows. Do not water too often, but when watering, do so freely.

The soil for outside culture of head lettuce cannot be too rich. The soil best adapted for this crop is a dark clay loam. The curly varieties of lettuce can be grown in any kind of soil, as they do not scald in hot damp weather, the same as head lettuce.

My method of planting is to use a marker, which marks six rows at a time, leaving a small furrow about an inch deep, into which I can pour water before planting. By using this method the plants do not wilt and they take an immediate root. The marker marks the rows fourteen inches apart, and the plants are set six inches apart in the rows. About three days after planting, I start to wheel-hoe, doing this at intervals of a few days, so as to keep up moisture, so that the plants will make rapid growth.

In cutting lettuce for market, do so in early morning, or late evening, wash it in cold clean water, and pack in boxes lined with newspaper. By doing this the purchaser gets the lettuce in good crisp condition.

I have been trying to grow lettuce for upwards of thirty years and I have had some success but more failures. I grow on a dark clay loam and can take three crops of lettuce off the same plot of ground. I do not know of any crop that pays better than the lettuce crop on my place. I could never do it on the place I was on before. I had muck, sand and sandy loam. If the season was good once in a while I could grow the lettuce, but nine times out of ten I failed.

W. J. Cooke: The coolness of a clay soil is probably better for lettuce than other soil.

Wm. Trick: Yes, there are always little lumps in it, which keeps it from scalding. I have tried it in hotbeds where my neighbour who was on heavier land could grow first-class lettuce planted between tomato plants. The man who was on the clay soil could always produce splendid lettuce and get $1.00 a dozen. I had a sandy loam and nine times out of ten before mine could get a solid head it began to scald.

Mr. Kitney: At the annual meeting of the Canadian Horticultural Council a resolution was brought in by the Niagara Peninsula Fruit Growers' Association, requesting that the Council petition the Dominion Department of Agriculture for legislation along the lines similar to legislation passed for fertilizer, requiring that all economic poisons sold in Canada be sold under analysis. There has been very considerable difficulty on the part of those purchasing spray materials concerning the material of the spray. The matter was taken up with the Dominion Department of Agriculture and we have their assurance that at this session of the Dominion Parliament a Bill would be brought forth.

Mr. Kitney then moved, seconded by Mr. Davis: "That the Ontario Vegetable Growers' Association strongly endorse the application of the Canadian Horticultural Council to the Dominion Department of Agriculture for legislation which will required that all spray materials be sold in Canada under a guaranteed analysis." Carried unanimously.

Mr. Delworth moved, seconded by Mr. Trick: "That the revised list of varieties as presented by Mr. Ritchie be adopted." Carried.

W. J. Cooke said he was not satisfied with the lettuce. In the committee the question had been raised whether Iceberg was the same as New York and Wonderful.

C. Delworth: No, they are different. In the Southern States they use Iceberg for half their hot weather crop. In a catalogue I have from a California seed house they recommend "Wonderful" as the cool weather crop, and Iceberg as the hot weather crop. They also say that "Hanson" is more resistant than "Wonderful". With Hanson you get away from the red tinge. The Wonderful is a very deep shade of green.

W. J. Cooke: Is the head lettuce that comes in now from California, the Wonderful?

C. Delworth: Yes. Some Iceberg is shipped here late in the spring from Texas.

Fertilizers

Mr. Emsley: In the discussion of Mr. Davis' address on the subject of fertilizers, reference was made to the great desirability of being able to estimate the value of a fertilizer from its analysis. Of course we all know that a fertilizer is compounded from a variety of materials. Some of these may be very readily available and others may not be, and it is very important that we should know something of the nature of the different ingredients. The fertilizers Act insists, of course, on the statement of analysis, that is the percentage of nitrogen, phosphoric acid and potash, and the new Act goes a little further and permits a statement of the water solubles in nitrogen guaranteed to be present. In fertilizer material we may have the organic forms as present in tankage. There is a certain amount—a very small proportion—of the nitrogen in organic material water soluble. But while provision is made for the statement of water soluble nitrogen, a great many manufacturers have decided not to state water soluble nitrogen at all, even though some might be present in that form. It is, therefore, very desirable that one should know something of the sources of the ingredients, and as Mr. Wilson suggested, it is desirable that they should be stated on the tag. The manufacturer in making application for registration has to state the sources of each plant food substance, but he does not give the proportion of each ingredient. Usually the manufacturer states all the sources that are in existence; he may use them in that particular fertilizer or he may not. So that

even access to that information is not sufficient so long as it does not give the proportion of the different sources. Perhaps half the nitrogen may be derived from tankage and, is therefore, present in slowly available form. Some, of course, argue it is desirable to have the nitrogen present in different forms, so that a certain portion will be available at different stages of the growing season. For instance, in nitrate of soda we get it immediately available and therefore growth is stimulated at the beginning of the season. That is one reason why the nitrate-nitrogen is so influential on fruit trees, because in the early spring there is no nitrate-nitrogen in the soil, and applied at the time the leaf buds begin to burst nitrate will promote the fruit-spur growth and thus influence the set of fruit for the crop of the following year.

Mr. Emsley here explained the different sources from which nitrogen was derived, saying: Nitrogen from the organic matter of tankage might not all become effective until late in the fall. Now that is the time we don't want it to be effective because excess of soluble nitrogen is undesirable in the ripening stages. This danger is avoided to some extent in the orchard by growing a cover crop. The chief influence of the cover crop is very often not to supply plant food but to take up the excess of moisture in the soil and with it, of course, the nitrates liberated from the organic matter. It is very important, as I said, to know something of the nature of each of these plant food elements. Where you purchase the several materials and mix them at home or apply them separately, of course you know then what you are getting, and there is the further advantage of being able to buy economically because these various materials, nitrate of soda, acid phosphate and muriate of potash, are all practically constant in composition.

Wm. Trick: I have been using considerable tankage this last three or four years, and by what I can understand from what you have said to-night the nitrogen is not available for a considerable time. At that rate it would be advisable to add some nitrate of soda to it.

Mr. Emsley: Yes. If you want to get the early influence of the nitrogen.

Mr. Emsley continued: An American firm sold what they called A-1 potash, and it contained only 1% potash. In Canada we have prevented that by forbidding the use of any misleading name or even of any crop name in describing a fertilizer. They are not allowed to register a fertilizer purporting to contain nitrogen or potash unless at least 2% is present, and that has a tendency to cut out low-grade stuff like 1-8-1, 1-6-1, etc. One United States firm registered in Ottawa 93 different brands, and when the new Act came into effect, they had to reduce the number to 23. Another which had 17 brands registered now registers only 7.

Eli Davis, London: I was wondering what you would think of a fertilizer containing 1 unit of nitrogen worth $4.80; 2 units of phosphoric acid worth $3.44; 1 of potash, $1.06; making it worth $9.30, counting in the humus, the straw, at about $10, it brings it to a fertilizer worth $19 a ton. That is *sheep manure*, and they charge $35 or $50 a ton for it. Now as near as I can make out, I cannot find any more in it than 1 unit nitrogen, 2 units phosphoric acid, 1 unit of potash.

Mr. Emsley: Dried blood is a very high quality fertilizer, the higher quality might contain 14 to 16% nitrogen; the other 11½ to 12%. It is a good fertilizer, perhaps the best of the organic materials. I do not think I would advise anyone to purchase it too extensively at that price—$66 a ton.

J. Lockie Wilson made a strong plea for a larger membership in the Association, urging the present members to bring in their neighbours and to get the

younger men. He congratulated the delegates on the splendid harmony that had prevailed between themselves and him during the sixteen years of his working with the Association. He requested any who do not get the annual reports promptly to write to him at the Parliament Buildings.

He also complimented the members on the co-operative spirit that had prevailed, one giving to the other information which they in their experience had obtained. He likened the spirit prevailing among the vegetable growers to that of Dr. Banting in his discovery and use of insulin.

Mr. Lefebvre moved a motion of thanks to all the speakers of the day. Seconded by Mr. May and carried.

It was moved by Mr. Davis, seconded by Mr. Lefebvre: "That we ask the Minister of Agriculture to have the reports printed as soon as possible." Carried.

The convention concluded with the singing of the National Anthem.

Ontario Department of Agriculture

Fifty-Fourth Annual Report

OF THE

ENTOMOLOGICAL SOCIETY

OF

ONTARIO

1923

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Entomological Society of Ontario

OFFICERS FOR 1923-1924

President—Dr. J. M. Swaine, Entomological Branch, Ottawa.

Vice-President—R. C. Treherne, Entomological Branch, Ottawa.

Secretary-Treasurer—Prof. A. W. Baker, B.S.A., O. A. College, Guelph.

Curator and Librarian—J. A. Flock, O. A. College, Guelph.

Directors—Division No. 1, C. B. Hutchings, Entomological Branch, Dept. of Agriculture, Ottawa; Division No. 2, C. E. Grant, Orillia; Division No. 3, Dr. A. Cosens, Toronto; Division No. 4, F. J. A. Morris, Peterborough; Division No. 5, Dr. J. D. Detwiler, Western University, London; Division No. 6, J. F. Hudson, Strathroy; Division No. 7, W. A. Ross, Vineland Station.

Directors (ex-Presidents of the Society)—Rev. Prof. C. J. S. Bethune, Toronto; Prof. John Dearness, London; Prof. Wm. Lochhead, Macdonald College, Que.; John D. Evans, Trenton; Prof. E. M. Walker, University of Toronto; Albert F. Winn, Westmount, Que.; Prof. Lawson Caesar, O. A. College, Guelph; Arthur Gibson, Dominion Entomologist, Ottawa.

Editor of "The Canadian Entomologist"—Dr. J. McDunnough, Entomological Branch, Ottawa.

Delegate to the Royal Society of Canada—The President.

FINANCIAL STATEMENT

For the Year Ending October 31st, 1923.

Receipts

Cash on hand, 1922	$384 39
Subscriptions	612 22
Members' Dues	174 95
Advertisements	308 67
Back Numbers	54 09
Contribution	2 00
Bank Interest	4 32
Government Grant	1,000 00
	$2,540 64
By Cash on Hand	$484 92
To Printing Account, payable	115 00
Net Balance	$369 92

Expenditures

Printing	$1,750 00
Salaries	200 00
Expense	84 43
Annual Meeting	8 40
Library	5 00
Exchange	7 89
Balance Cash on Hand	484 92
	$2,540 64

Auditors { L. Caesar. J. A. Flock.

Respectfully submitted,

A. W. Baker,
Secretary-Treasurer.

Entomological Society of Ontario

DIAMOND JUBILEE MEETING

The Diamond Jubilee Meeting of the Entomological Society of Ontario was held in Ottawa on Thursday, Friday and Saturday, November 1st, 2nd, and 3rd, 1923.

The morning and afternoon meetings were held in the exhibition room of the Dominion Entomological Branch. The Thursday evening meeting was held in the assembly hall of the Normal School, when Dr. A. F. Burgess delivered the public address on "The Value of Natural Enemies of Injurious Insects." On Friday evening the members and visitors met at dinner in the University Club. After dinner the gathering was addressed by Mr. J. A. Ruddick, of the Dominion Department of Agriculture, and Mr. Morris delivered the presidential address: "Nature's Clairvoyant; a Study of W. H. Hudson." A short paper from Dr. Bethune, entitled "The Early Days of the Entomological Society of Ontario," was read by Mr. Gibson. An interesting feature of the meeting was the visit to the Parliament Buildings and Central Experimental Farm on Saturday morning. During the meeting motion picture films entitled "Where the Moose Runs Loose," "A New Yorker's Canadian Week-end," and "The European Corn Borer," were shown through the kindness of the National Parks Branch, Department of Interior, the Motion Picture Branch, Department of Trade and Commerce, and the Provincial Motion Picture Bureau.

The meetings were very well attended by members of the society and visitors and were highly successful. Much credit must be given to the local committee in charge for the splendid arrangements made for the convenience and entertainment of visiting members.

The officers for the year 1923-24 were elected as follows: President, Dr. J. M. Swaine; Vice-President, Mr. R. C. Treherne; Director of District No. 1, Mr. C. B. Hutchings. The remaining officers were re-elected.

A. W. Baker, *Secretary.*

REPORT OF THE COUNCIL

The Council of the Entomological Society of Ontario begs to present its report for the year 1922-1923.

The Fifty-ninth Annual Meeting of the Society was held at the Ontario Agricultural College, Guelph, on Friday and Saturday, November 24th and 25th.

The meeting was well attended by members of the society from various provinces of the Dominion and by members of the staff of the Ontario Agricultural College and other visitors. The members of the Council were gratified to see a number of the older members of the society present in the persons of Messrs. Evans, Dunlop, Southey and Brimley.

On Friday evening a dinner was held in the College cafeteria, after which the members and visitors adjourned to the common room of Mills Hall for a smoker. During the evening the President, Mr. Morris, read a very interesting paper on a collecting trip to Rondeau Park and Point Pelee.

During the rest of the time of meeting the following papers were presented:

The Spread of the Corn Borer in 1922.....L. S. McLaine.
Further Notes on the Life History of the European Corn Borer.....G. J. Spencer.
Revised Control Measures for European Corn Borer.....H. G. Crawford.
The Economic Importance of Insects as Food for our Common Whitefish.Dr. W. A. Clemens.
The Haunts and Habits of Somatochlora.....Dr. E. M. Walker.
Mechanical Devices used in the Control of the Strawberry Root Weevil..W. Downes.
Provancher—his Life and Works.....George Maheux.
Observations on the Oviposition of *Senotainia trilineata* V. der Wulp (Tachinidae).....C. H. Curran.
Insects of the Season in Quebec.....George Maheux.
The Relationship of Biological and Taxonomic Studies of Syrphidae (Diptera).....C. H. Curran.
Insects of the Season in Ontario.....Prof. L. Caesar, W. A. Ross.
Notes on *Frankliniella tritici* Fitch.....R. C. Treherne.
Biological Notes on two Buprestid Beetles (*Agrilus ruficollis* and *A. politus*).....C. B. Hutchings.
The Outbreak of Grape-Leaf Hoppers.....W. A. Ross and W. Robinson.
The Feather Mite—A New Poultry Pest.....Prof. L. Caesar.
Some Observations on the Oviposition of *Hypera punctata*.....H. F. Hudson.
Recent Developments in the Dominion Entomological Service.....Arthur Gibson.
The Sunflower Maggot.....J. E. Brink.
Recent Work on the Rose Chafer.....W. A. Ross and J. A. Hall.
The Occurrence of the Potato Seed Maggot, *Hylemyia trichodactyla*, in Ontario.....G. H. Hammond.

An interesting feature was the presentation by the Ontario Provincial Motion Picture Bureau of a motion picture film on the European corn-borer.

The Canadian Entomologist, the official organ of the society, completed its fifty-fourth volume in December last. The volume contained 294 pages, illustrated by eleven full-page plates and nineteen original figures. The contributors to these pages numbered fifty-three and included writers in British Columbia, Alberta, Ontario, New Brunswick, seventeen of the United States and the Hawaiian Islands. Twelve papers were published during the year on popular and practical entomology.

REPORT OF THE MARITIME BRANCH

The ninth annual meeting of the Acadian Entomological Society was held in Amherst, N.S., on December 12th, 1923. The regular business session was held and the following officers were elected for 1924:

Honorary President.....Dr. A. H. MacKay, Halifax.
President.....Dr. J. D. Tothill, Fredericton.
Vice-President.....Mr. J. P. Spittall, Annapolis Royal.
Secretary-Treasurer.....Mr. W. E. Whitehead, Truro.

The remainder of the day was devoted to an informal discussion of entomological problems.

During the past year "Proceedings" No. 8 had been published, which contains 182 pages and 25 plates, the increase in size of this number being made possible by a surplus of funds which the society had on hand. Our membership is about the same as that of last year.

W. E. Whitehead, *Secretary-Treasurer.*

REPORT OF THE MONTREAL BRANCH

The fiftieth annual meeting was held on May 12th, 1923, in the Lyman Entomological Room, Redpath Museum, McGill University.

Eight meetings were held during the season, with an average attendance of eight members.

A very successful field day was held at St. Hilaire on May 24th.

The following papers were read during the year:

The Trials of an Entomologist	A. F. Winn.
Bee Disease	G. H. Hall.
Work of the Amateur Entomologist	Geo. A. Moore.
Notes on *Arge pectoralis*—the Birch Sawfly	J. W. Buckle.
The Stilt Bugs	Geo. A. Moore.
Notes on some flies commonly seen in our dwellings	Bro. Ouellet.
Notes on the genus Batocora	G. Chagnon.
Gelastocoridae—Toad-Shaped Bugs	Geo. A. Moore.
Some Pentatomidae from China	G. Chagnon.
Clastoptera	Geo. A. Moore.
Notes on the Dipterous family Bombyliidae	Bro. Ouellet.
On the larval and pupal stages of *Chironomus*	T. W. Barnes.
The Chinch Bug	Geo. A. Moore.

The treasurer reported a balance on hand of $176.28.

The following were elected officers:

President	Geo. A. Moore.
Vice-President	G. H. Hall.
Secretary-Treasurer	J. W. Buckle.
Council	G. Chagnon, A. C. Shepherd, and J. Warren.

J. W. Buckle, *Secretary.*

REPORT OF THE TORONTO BRANCH

The twenty-seventh annual meeting of the Toronto Branch was held in the Biological Building, University of Toronto, on October the 24th, 1923. The President, Mr. S. Logier, occupied the chair.

The report of the Council showed that during the past year eight regular meetings were held at which there was an average attendance of eleven persons. The following papers and addresses were given at the meetings.

Odonata and Orthoptera collected at Rondeau Park and Point Pelee	Prof. E. M. Walker.
Collecting at Lake Nipigon	Mr. N. K. Bigelow.
The Strawberry Petiole Gall, *Diastrophus fragariae*	Dr. A. Cosens.
Metallic Wood Borers	Mr. N. K. Bigelow.
Bird Lice	Prof. A. W. Baker.
Haunts and Habits of Somatochlora	Prof. E. M. Walker.
Food of Lake Nipigon Fishes	Prof. W. A. Clemens.
Beetles Frequenting the Household	Mr. N. K. Bigelow.
Aphids	Mr. W. A. Ross.
Grylloblatta	Prof. E. M. Walker, Dr. N. H. C. Ford.

Four new members were elected, namely, Sister Lilian, Sister Ruth, Mr. G. N. Bird and Mr. H. H. MacKay. One member was dropped from the roll.

The treasurer's report showed a balance of $25.72.

The report of the librarian noted that forty-six publications had been added to the library during the year. These had been catalogued and filed.

The following officers were elected for 1923-24:

President ..... Mr. Shelley Logier.
Vice-President ..... Prof. E. M. Walker.
Secretary-Treasurer ..... Mr. H. H. MacKay.
Librarian ..... Dr. N. H. C. Ford.
Council ..... Prof. W. A. Clemens, Dr. A. Cosens, Mr. N. K. Bigelow, Mr. A. H. Leim.

A. H. Leim, *Secretary-Treasurer.*

REPORT OF THE BRITISH COLUMBIA BRANCH

The twenty-second annual meeting was held in the Court House, Vancouver, on Saturday the 17th of February, 1923.

The President, Mr. L. E. Marmont, was in the chair, and from twelve to fifteen members were present throughout the meeting.

At the business session in the morning, three new members were proposed and accepted, Mr. K. F. Auden, Mr. A. O. Hope, and Mr. O. Whittaker.

A redraft of the by-laws was passed upon for incorporation purposes.

It was decided not to provide another cup this year for school competition.

Upon the motion of Mr. Venables, it was decided to hold a summer meeting at Vernon during the visit of the Dominion Entomologist.

The following papers were read:

Presidental Address ..... L. E. Marmont.
Collecting in the Sagebrush of the Southern Okanagan Valley ..... E. R. Buckell.
Key to the Vespini* ..... C. D. Garrett.
Control of Oyster-shell Scale with Oil Sprays* ..... M. H. Ruhmann.
The Peach Twig Borer in B.C.* ..... R. C. Treherne.
Economic Entomology in the Dry Belt ..... E. P. Venables.
Notes on Economic Insects in 1922 ..... W. Downes.
New Records of B.C. Hemiptera ..... W. Downes.
Effect of Fumigation on Certain Insects ..... W. H. Lyne.
The Elm-Currant Aphis ..... R. Glendenning.
Forest Entomology* ..... R. Hopping.
Mosquito Control at Banff* ..... E. Hearle.
Relation of Botany to Entomology* ..... W. B. Anderson.

Slides, showing the beauties of the Mymaridæ were shown under the microscope by Mr. Whittaker.

The election of officers for 1923 resulted as follows:

Honorary President ..... E. Kermode.
President ..... L. E. Marmont.
Vice-President (for Coast) ..... R. S. Sherman.
Vice-President (for Interior) ..... M. H. Ruhmann.
Honorary Secretary-Treasurer ..... R. Glendenning, Agassiz, B.C.
Honorary Auditor ..... W. S. Moore, J.P.
Advisory Board—The Officers and J. Davidson, W. Downes, E. Hearle, W. H. Lyne, E. P. Venables.

It was decided, according to precedent, to hold the 1924 meeting in Victoria, B.C.

*Read by proxy.

During 1923 one number of "Proceedings" (Nos. 17 and 19 combined) was published, containing the following papers:

Report of the Secretary-Treasurer.
Presidental Address.
The European Earwig in B.C. ..... R. C. Treherne.
The Relation of the Predatory Mite, *Hemisarcoptes malus*, to the Oyster-shell Scale in B.C. ..... E. P. Venables.
Insects of Economical Importance in the Lower Fraser Valley in 1921 ..... R. Glendenning.
The Relation of Botany to Entomology ..... W. B. Anderson.
Effect of Fumigation on Certain Insects ..... W. H. Lyne.
The Peach Twig Borer ..... R. C. Treherne.
Forest Entomology ..... R. Hopping.
Mosquito Control at Banff ..... E. Hearle.
The Status of Spreaders in Poison Spray Solution ..... A. L. Lovett.

The summer meeting in the Okanagan was not held, coast members finding it impossible to attend.

R. Glendenning, *Hon. Secretary-Treasurer.*

REPORTS ON INSECTS OF THE YEAR

Division No. 3, Toronto District.—A. Cosens

Only a few insects were noted as particularly plentiful this year. Two leaf rollers were among these. The species, *Anacampsis populella* Clemens, that feeds upon the foliage of the large-toothed aspen, *Populus grandidentata* Michx, had infested the trees in High Park to such an extent that some branches had almost every leaf rolled. The larvæ of this form appeared to be almost mature on June 22nd. The other leaf-roller, *Cacoecia hewittana* Busck, was feeding upon second-growth soft elm, *Ulmus Americana* L. The moths emerged the last week of June. The latter species was kindly identified for me by August Busck, Smithsonian Institution, Washington. He states that the pest is common to both Europe and America. On the same specimens of Ulmus, on which were the leaf-rollers, galls were fairly common. These were on the foliage and consisted of a thickening of the leaf blade along the lines of the veins. The infected leaves were also folded with the upper surfaces within. The gall-producer in this instance is a gall gnat, *Phytophaga ulmi* Beutm.

On June 30th, the rose chafer, *Macrodactylus sub-spinosus*, was noted in large numbers feeding upon wild roses and other plants in High Park. About the same date, rose growers in the vicinity of the park stated that the beetles were plentiful upon their cultivated roses. These beetles are easily recognized. The body is slender and thickly clothed with fine, yellow hairs, which give it a yellow colour. The legs are long, slender and pale red. This pest is difficult to combat. A poison spray is not very effective and about the only other plan suggested is to jar the beetles off the bushes into a dish of kerosene, a method that would be applicable only on a small scale. These beetles do considerable injury to plants as not only do the adults feed upon the foliage but the larvæ also feed upon the roots.

Along the beach at Kincardine, during the month of August, that curious Hymenopterous insect, *Pelecinus polyturator*, was quite numerous.

This insect, which is glossy black in colour, has short wings with only a few veins. The female can be readily recognized by its long, slender abdomen, nearly five times the length of the head and thorax together. This elongated abdomen

is doubtless of use to the insect in boring into the ground to reach the larvæ of the May beetles, upon which the parasite is said to deposit its eggs. The abdomen of the male is club-shaped, and not more than twice the length of the head and thorax. The males are seen only rarely, and are supposed to fly high in the air. The females, on the contrary, fly near the ground and often alight, apparently to rest.

As usual the green aphis was troublesome on the rose bushes. In this connection I wish to place on record that from two independent sources I was informed that English sparrows were seen feeding upon the pests and destroying large numbers of them. This is at least one good deed that stands to the credit of these successful little colonizers.

Division No. 6.—H. F. Hudson

The season of 1923 on the whole has been a light insect year. So far as known to the writer, the insect loss to the staple crops has been generally light. There are, however, one or two entomological features worth noting.

Field Crop Insects

Wireworms.—In Elgin county, as well as in Perth county, considerable injury was done by various species of wireworms. Around the outskirts of Stratford, covering an area approximately five square miles, wireworm injury was very marked. Replanting was necessary in many fields. Several cornfields in Elgin county had to be replanted owing to the ravages of these pests.

Cutworms.—On the lighter soils extensive injury to oat and cornfields has been noted. In Middlesex county, approximately one hundred acres of corn land had to be replanted. The identity of the cutworm is not known.

The Hessian Fly.—Reports of injury to the wheat crop was received from Huron, Waterloo, and Middlesex counties, but injury generally was light.

The European Corn Borer.—There appears to be a slight general increase of this pest but on the whole the general injury was not as marked as in previous years. It seems to be gaining headway around London, in Middlesex county, especially in early sweet corn, while a similar condition prevails around Aylmer, in Elgin county.

The Colorado Potato Beetle.—The spring brood of this insect was heavy, and very injurious, but the second brood was light.

Truck Garden Insects

The most important truck insect of the year was the cucumber beetle. Cucumbers stood the attack better than melons which were in some cases totally destroyed. Some efficient control measure is needed. Dusting with hydrated lime helps in control, but too frequent dusting appears to injure the foliage.

The Cabbage Maggot.—Injury was less marked this year than for several years, although near Port Stanley there was a fifty per cent. loss in a commercial plantation.

Shade Tree Insects

The White-Marked Tussock Moth.—This was quite abundant around London, Ontario. In the fall as many as twenty egg masses were noted on a single tree-trunk.

The Walnut Datana.—These caterpillars were more abundant than I have noted for several years. Wherever walnut trees were present they were in many cases defoliated.

Special Features

The Seed Corn Maggot.—Specimens of potato sets were received from Perth county, heavily infested with maggots. A trip was made to the affected field to secure additional material. Infestation appeared to be limited to a single five-acre field. The maggots were reared to the adult flies and were kindly determined by Mr. Curran of the Dominion Entomological Branch as *Hylemyia cilicura.*

Sod Webworms.—A note was received from Mr. W. H. Sands of the Provincial Experimental Farm at Ridgetown, that several fields of corn had been destroyed by one of the webworms, apparently a species of crambid. No material was received and the exact identity of the insect is not known.

Onion Thrips.—Reports from the onion marsh at Leamington, Ontario, indicate that this pest was unusually abundant and injurious this year.

THE EARLY DAYS OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO

Rev. C. J. S. Bethune, Toronto

It is gratifying to me, as one of the founders of the Entomological Society of Ontario, that it should be celebrating its "Diamond Jubilee," and that it should have continued to grow and flourish during so long a period of time.

Sixty-one years ago, two young men—the late Dr. William Saunders and I—who were enthusiastically devoted to the collection and study of insects, and spent all their spare time in the pursuit, after a good deal of correspondence decided that it would be a good thing to organize a society and gather together the few, widely-scattered people who shared with them a deep interest in entomology.

Our first proceeding was to procure the names and addresses of all those who shared with us an interest in the subject. After a good deal of correspondence we were able to make a list of thirty-six persons, four of them ladies, who collected insects. This was published in the seventh volume of *The Canadian Naturalist and Geologist* of Montreal, in June, 1862. In the autumn of that year a meeting was held at the residence of Prof. Croft, of the University of Toronto. After some discussion it was decided that as there were only ten persons present, it would be better to postpone any action until a larger number could take part in the proceedings. Later on we called another meeting, which was held in the rooms of the Canadian Institute of Toronto, on the 16th of April, 1863. There were only twelve present, but we had letters approving of the project, and so we decided to go on. A constitution was adopted, and the society was named "The Entomological Society of Canada." Prof. Croft was elected president; Dr. Saunders, secretary-treasurer; and Mr. J. Hubbert, curator.

At this time Canada consisted of Upper and Lower Canada, now the provinces of Ontario and Quebec, and we had members resident in both. In 1864, Dr. Saunders was elected president, and I became secretary-treasurer, an office that I held for seven years. In 1868, when I was living at Erindale on the river Credit, after much consultation, I began the publication of *The Canadian Entomologist*, an eight-page periodical, which has grown and flourished, and for a long time has been recognized as one of the leading publications on entomology in America.

The next event of importance took place in 1870, when we were asked to prepare a report on injurious insects. This was undertaken by Dr. Saunders, Mr. E. Baynes-Reed (one of our original members), and myself. Three articles were prepared: Insects Affecting the Grape, the Plum, and the Apple-tree. The report was published by the Department of Agriculture early in the following year, and was widely distributed. So useful was it considered that it was reprinted twenty-five years later. This was the beginning of the issue of the Annual Reports of the Society which have regularly appeared for more than fifty years.

One good result of the first report was a grant of $400 to the society from the Department. Soon afterwards, as the result of a report on the Colorado potato-beetle, by Dr. Saunders and Mr. Reed, the grant was increased to $1,000, and has been continued ever since. A further result was the incorporation of the society by the Legislature of Ontario, and the change of its name to its present designation, though it was by no means restricted in its operations to this province.

For nine years the society was kindly permitted to use the rooms of the Canadian Institute in Toronto for its meetings, and the housing of its library and collections. The headquarters were then removed to London where a flourishing branch had been established. In 1906 the removal was made to the Ontario Agricultural College at Guelph.

To many this brief record is an old story, but I trust that it may be of interest to our younger members to learn of our days of small things, and to realize how our operations have extended over the whole Dominion, with active branches in Montreal and Toronto, the Maritime Provinces, and British Columbia.

Ten years ago a delightful celebration of the jubilee of the society was held at Guelph. It is sad to recall the losses that we have sustained by death since then. Dr. Saunders, who, however, was not able to be present at the meeting, died a few months afterwards. We have to deplore also the deaths of Dr. Fyles, Dr. Hewitt, Mr. and Mrs. Henry Lyman, and Mr. Sladen; and amongst our visitors, Prof. Webster and Mr. Meade-Waldo, of the British Museum.

I regret very much that, owing to the infirmities of old age, I am unable to be present at the Diamond Jubilee of the society. May it continue to grow and flourish, and to extend, as the years go by, the knowledge and application of systematic and economic entomology.

THE ROSE CURCULIO IN MANITOBA—WITH NOTES ON OTHER INSECTS AFFECTING ROSES

H. Alex. Robertson, Entomological Laboratory, Treesbank, Man.

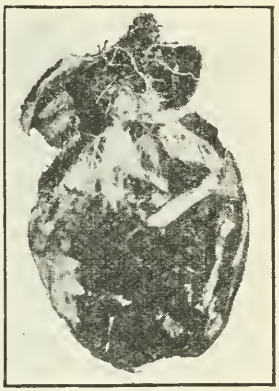
The destructiveness of the Rose Curculio, *Rhynchites bicolor* Fab., has been brought forcibly to our attention on many occasions in Manitoba, particularly during the past few summers. The characteristic puncturing of the young rosebuds and the failure of the petals to open are now familiar to most people who take an intelligent interest in rose-growing. The injury caused has given rise to frequent inquiries, and it is as a result of these that a brief preliminary study of the insect has been undertaken.

This beetle, which is widespread in North America, has sometimes been confused with the Rose Chafer (*Macrodactylus subspinosus* Fab.) because of the

general nature of its work. While there is little justification for this, it might perhaps be explained by the fact that the adult Curculio is not readily seen unless one is careful when approaching rosebushes. If the bushes are shaken at all, the beetle, which is easily alarmed, will let go and fall to the ground. The adult is conspicuously marked, as its name would suggest, and may be observed, if some caution be taken, resting upon the foliage or at work devouring the buds. Once seen, there is, of course, no likelihood of associating the prominently beaked Curculionid with the above-named Scarabaeid, which, moreover, is not found on the Canadian prairies.

It is usually the depredations and seldom the insects themselves which first attract the attention of rose-growers, and for the most part the destruction of rose blossoms goes forward unchecked, so elusive and yet persistent are the

Dipterous larva in rose hip.



Larva, *R. bicolor*, showing position in hip.

Fully developed larva, *Rhyncites bicolor*.

Rose hip, showing emergence hole of larva of *R. bicolor*.

attacks of the little invaders. Experiments, however, have shown us that a very appreciable control may be realized by combating either the early larval or adult forms.

Life Cycle. The life cycle of *R. bicolor* as it occurs in Manitoba may be summarized by the following dates:

Adult emergence	June 1
Egg-laying	June 14
Hatching	July 8
Desertion of hips	Sept. 4
Pupation	May 16

The above dates are the earliest recorded for each stage, the averages being from one to two weeks later. The period of emergence for the adult may be especially prolonged in some cases; certain apparently healthy larvæ, after hibernating, having failed to pupate as late as the next September. It would seem, therefore, that, as an additional means of preservation of the species, some individual members may hibernate for a second time.

Plants Attacked. All of our native roses as well as various cultivated ones, such as *Rosa rugosa*, are attacked by the Curculio. While none appear to be immune there is yet a marked difference in the degree to which plants are infested, the location as well as varietal susceptibility causing variations.

Thus in early September larvæ have been found in as many as 63.3 per cent. of the hips of *R. pratincola* on an open southern slope, while along a roadside in Bottineau county, N.D., *R. pratincola* was found infested to as high as 74 per cent. In the case of plants partially protected by trees the percentages were distinctly lower, probably because of the preference of the insect for bright sunshine. At the edge of a wood *R. acicularis* and *R. blanda* have been found infested to the extent of 29.6 per cent., while for plants entirely shaded within the wood, 6 per cent. was the highest for any species. The relative susceptibility of *R. macounii* has not been determined because of its rareness in Manitoba. Injury to small fruits such as blackberries and raspberries, as mentioned by some observers, has up to the present been negligible here.

Natural History and Habits. In southern Manitoba the first adults appear promptly about June 1st and are most abundant by the middle of the month. They disappear rather suddenly in July but specimens have been seen by us as late as August 7th, this being due, as has been mentioned, to the late pupation of some of the larvæ.

Upon emerging, the Curculio ascends a convenient rosebush and, after sunning for a while, begins to feed on the buds by making deep punctures with its well-adapted beak, often eating twenty or more holes in the same bud and sometimes a few additional ones in the hip. When not feeding it rests upon the foliage a great deal, but on bright, warm mornings it is never idle. Copulation is common a few days later and egg-laying begins towards the end of June.

The eggs are laid in the punctures and are inserted sufficiently to be almost concealed. Only one, or more rarely two eggs, are laid in each bud.

Hatching commences the second week in July and the young larvæ live for a short time within the flowers, then desert the flowers for the hips where they are found the latter part of August feeding on the seeds. Here they develop rapidly. Only one fully developed larva has been found to survive in each hip. Beginning about September 4th, the larvæ bore their way out of the hips, fall to the ground and bury themselves to a depth of 1½ to 4 inches in the soil where they hibernate. By the middle of the following May the first pupæ are being formed in the soil and, after a period of two weeks, the first adult Curculio emerges.

Egg. Pale yellow, shiny, somewhat translucent, distinctly narrower at one end than the other and varying a little in size. Length: 0.9-1.2 mm.; width: 0.6-0.9 mm.

Larva. Colour pale yellowish, except the portion of the head above the epistoma, which is dark-brownish, the coloration extending farther along the mid-line; clypeus and labrum pale; mandibles black with three teeth; antennæ one-jointed and situated at the bases of the mandibles, slightly darker than the

body colour. Body with many small hairs, legless and strongly curved, conforming with the position assumed in the hips. One pair of spiracles on the prothorax and eight on abdomen, each with two lobes. Larval movements are extremely awkward and effected by means of the two extremities and the longitudinal contractions of the body. Length of larva: 5-6x2.5 mm.; width of head: 1 mm.

Pupa. Resembles the larva in size and colour and responds to gentle stimulation with quick but purposeless jerks.

Adult. General appearance is as described by Blatchley and Leng (Rhyncophora of N.E. America, p. 58) except that the head frequently is entirely black. This was the case in 26 per cent. of a large series of the beetles collected by sweeping in the same vicinity.

"Robust, convex, pyriform. Elytra, thorax and head behind eyes bright red; under surface, femora and beak black; tibiæ, tarsi and antennæ piceous black. Beak as long as head and thorax, rather sparsely marked with elongate punctures; antennæ inserted at its middle, their grooves distinct. Thorax cylindrical, as long as wide, rather densely and finely punctate. Elytral striæ indistinct, their punctures but little coarser than those of intervals, which are very dense. Beak of female shorter and stouter than in male. Length: 5 to 6.5 mm."

Control. The control of the Rose Curculio is difficult, particularly so when the adults are not anticipated or discovered early enough, for a very few will cause extensive mutilation. Others, moreover, are likely to migrate from neighbouring bushes. When small numbers occur, hand-picking, net-sweeping or shaking into an umbrella, etc., will suffice, but for a severe outbreak heavy applications of spray, using lead arsenate in the strength of 3 to 5 lbs. per 50 U.S. gallons of water is the most efficient procedure. By this method a 95 per cent. kill has been obtained. Spraying has the advantage of also destroying certain other larvæ which feed upon the foliage at the same time of the year.

If an examination of the hips in the autumn shows a fair percentage of infestation, e.g., 20 per cent., of larvæ present, then spraying might well be begun the first week of the following June, even before the beetles have been noticed. Still more certain is the practice of picking and burning all the hips before the first of September, thus catching the larvæ before they have fallen to the ground. In any event, very careful observation is a necessary factor in their control.

Other Insects Affecting Roses. In addition to the Curculio there are several insects which at one or more stages of their life histories produce injury to roses. These include a dipterous and a chrysomelid larva which infest the hips, a Scarabæid which feeds upon the leaves, and other chrysomelidæ which feed largely upon the flowers.

Noteworthy among these is the pretty green and black Scarabæid, *Dichelonyx backi* Kay, which exhibits a distinct fondness for rose foliage. As many as thirteen of these beetles have been seen feeding simultaneously upon a single small plant of *R. acicularis* in the Kennedy district of Saskatchewan.

To be noted also are certain chrysomelids, including *Haltica tombacina* Mann., and *Calligrapha lunata* Fab., as well as a fly *Spilographa setosa* Doans, which has been found in its larval state to inhabit the rose hips during the autumn, not infrequently along with *R. bicolor*. Later it passes to the ground, where it forms its puparium and emerges as an adult late the following June. In the hip the larva is confined more to the juicy outer wall than to the seeds as in the case of

the Curculio. A hymenopterous parasite has been reared from this interesting fly and it is hoped that further investigations of both, as well as the other species mentioned, may yet be carried out. In conclusion, grateful acknowledgment is made of the generous assistance rendered in this study by Mr. Norman Criddle, Entomologist in Charge for Manitoba.

TWO PROBLEMS IN NATURAL CONTROL

Norman Criddle, Dominion Entomological Laboratory, Treesbank, Man.

The study of natural control has always been of great fascination to me. There are so many intricate byways to be traversed and so many inter-relations to be studied before the links begin to form a chain and the chain is joined to other chains, thus eventually giving us an insight into the great web of life.

When we view natural control in this way we see that it goes beyond the realms of any one science—Entomology, ornithology, mammalogy and botany are all involved in its kingdom, which stretches out over the entire world.

It is not my intention, however, to involve myself in all the intricacies of natural control in this paper. I wish, rather, to touch upon one or two of the more important problems with which I have come in contact during the last few years.

One of the major problems that has engaged our attention in Manitoba during the present century has been that of controlling the Wheat-stem Sawfly, *Cephus cinctus* Nort. The insect began its career as a pest more than twenty years ago and from that time on it has occasioned enormous losses to farmers of the Prairie Provinces. Its spread was slow at first, but later it made rapid inroads into the grain fields, and to-day it is found over practically the entire wheat-growing areas of Manitoba, over much of Saskatchewan and part of Alberta. It is also a common pest in North Dakota.

Now *Cephus cinctus* was originally a grass-stem inhabitant and any stem might accommodate the larvæ, providing it was large enough. Consequently, the only limit to the insect's increase was the number of suitable stems and the prevalence of its natural enemies. Of the two I think the latter were the most efficient in keeping it within bounds, but in spite of its enemies the sawfly managed to hold its own without much difficulty and when man began to upset the natural balance, as he is always doing, the sawfly soon took advantage of the new plants provided. Thus it came to pass that the sawfly became a pest, but what had become of its natural enemies? Had natural control, in this instance, lost its effectiveness? Temporarily, yes, but there is reason to hope, not permanently. When the sawfly invaded the wheat and rye fields it succeeded in leaving its parasitical enemies behind and in consequence it spread with far greater rapidity than would otherwise have been possible. For a long time it appeared as though the parasites, so common in grasses, could not follow their hosts into the new food plants; perhaps due to certain cultural methods, or to some other causes imperfectly understood. Gradually, however, odd stems of *Cephus*-infested grains were found to contain the parasites. They were found chiefly on the edges of fields, at first, just as the first sawflies had been, as if constituting an overflow from the grasses round about. Ultimately one parasite, *Microbracon cephi* Ghn., began to spread farther afield and such was its progress by

1923 that Ainslie, of the U. S. Bureau of Entomology, and I found a fifty per cent. parasitism in certain fields near Bottineau, North Dakota. In Canada, K. M. King, of the Dominion Entomological Branch, discovered a ten per cent. infestation in plots near Saskatoon, Sask., and we in Manitoba found the parasite to be quite widely prevalent in grain fields, though still mostly on the edges of the crop. Hence a beginning has been made, but the parasite will have to make far greater progress before we can expect to reap much benefit from its activities. Once a start has been made, however, and a foothold obtained, we can hope for further gains. There is this consolation, too, that the *Cephus* damage in North Dakota during 1923 was less than half what it was some years ago.

There are other parasites of the Wheat-stem Sawfly which, as yet, have been very rarely recovered from grain stems. There are also, I regret to say, some secondary parasites, one of which, *Eupalmus alyni*, we have reared from *Microbracon cephi*. There is also a much smaller Hymenopteron, probably a parasite on *Eupalmus*. Thus the wheels within wheels complicate our problem of natural control, though they obviously add to its interest.

I have some hesitation in appearing as a student of forest insects, but we have been so long without adequate investigators of shade-tree and forest insects on the prairies that it has seemed absolutely necessary to study some of the more important forms with which our people have had to contend.

Two of these insects have been forced upon me with particular emphasis during the last two years, namely, the Forest Tent Caterpillar, which has defoliated more than a hundred square miles of trees in Saskatchewan, and the Fall Webworm, which has cleaned up local areas of trees with equal thoroughness.

I am not going into details of these outbreaks other than to state that the insects involved have certain parasites in common. One in particular has turned up quite frequently, namely, *Itoplectis conquisitor* Say. We reared it last year from the Fall Webworm in small numbers. This year it parasitized tent caterpillars to the extent of about twenty per cent., and it occurred in great numbers among the *Hyphantria* this fall. Another species, *Ephialtis pedalis* Cress., has been reared from the *Malacosoma* larvæ and has been seen amid the fall webworms, so we may suspect that there is a linkage between the two hosts and the two parasites. Other Hymenopterous parasites as well as certain Tachinidæ have been reared or collected from, or near, one host or the other, but I am emphasizing *Itoplectis* because of its commonness and because of its dependence upon at least two hosts for its perpetuation. In the shrubby or semi-wooded country its usual hosts appear to be *Malacosoma fragilis* and certain *Tortricidæ*, all tent-building species. In the more wooded country it may attack the insects already mentioned but readily infests as alternatives both *Malacosoma disstria* and *Hyphantria textor*.

Judging from the number of *Itoplectis* present it would seem as if this and other parasites will practically eliminate the webworm outbreak next year, but we cannot predict as much for the tent caterpillar, because the two pests have occurred at widely separated places and we do not know what intermediate hosts are present in the tent caterpillar region, or whether *Itoplectis* is a strong enough flier to migrate long distances in search of hosts.

If we could only transport the heavily parasitized *Hyphantria* pupæ to the *Malacosoma*-infested area much good might result. Perhaps, however, it would be better still to have actually shipped the healthy webworm pupæ to the tent caterpillar district in order to insure a supply of alternate hosts for the parasite.

The shipping of a healthy pest to a comparatively free region may seem a rather risky recommendation, and doubtless it would be were we to transport

such pests beyond their known range, but within the range little harm should result, while much good might be accomplished. It seems reasonable to suppose that the shipping of healthy webworm pupæ would be particularly appropriate in this case, because of the fact that the second generation of *Itoplectis* would be more numerous than the first and on this account the imported *Hyphantria* would probably be the first to become exterminated by the parasite. If, on the other hand, the tent caterpillars were the first to go, the abundance of parasites issuing from them would almost surely be sufficient to finish up the remaining webworms.

As pointed out above there are a third series of secondary hosts for *Itoplectis* in the tent-making *Tortricidæ* from which the parasite has frequently been reared by us but we have not yet been able to discover any alternate hosts for the spring generation other than the various species of *Malacosoma*. *Itoplectis*, however, is known to have a very wide range of hosts in the United States and it is possible, therefore, that it will yet be found infesting canker worms and other spring larvæ. In any case *Itoplectis conquisitor* seems to be an extremely important parasite and a knowledge of its full life-history is surely desirable.

I have in conclusion to acknowledge the assistance of Mr. R. M. White, who has handled most of the rearing in the *Hyphantria* studies.

THE PRESENT STATUS AND DISTRIBUTION OF THE APPLE AND THORN SKELETONIZER (*Hemerophila pariana* Clerck, Lepid.)

M. D. Leonard, Associate State Entomologist, Albany, N.Y.

In the fall of 1917 it was discovered that a new apple pest had become well established in Westchester and Rockland counties in the lower Hudson River valley, and so another undesirable was added to New York's already too long list of insect immigrants. Dr. Felt has called this the apple and thorn skeletonizer.

Just how this pest may have been introduced into New York or just how long it may have been present is not definitely known. It has long been known, however, as a minor pest to apple in Europe, and also occurs in Turkestan and Western Asia,

The direction of spread in this country has been mostly to the north and east. By the end of 1918 it was definitely known to occur in Rockland county from Yonkers to Yorktown Heights, a distance of almost twenty-five miles. At the close of 1921 there had been only a moderate extension of the infested territory in New York northward. In the fall of 1920, however, it was observed at Orient Point at the far eastern end of Long Island, and was also found to have become established in Greenwich and Stamford, Connecticut, and at the close of 1921 had apparently spread all over that state except along the northern border.

According to the reports available it was first noticed in Massachusetts in the fall of 1922 in small numbers in the vicinity of Huntington and Chesterfield and also at Amherst. In the opinion of Mr. B. A. Porter, of the U.S. Bureau of Entomology, it had probably been present in the first two above-mentioned localities for a year or two. At Amherst the abundance of moths was probably due to a migrating flight northward from Connecticut. In New York, 1922 saw the extension of the range of the pest northward into Albany and Rensselaer

counties with severe damage throughout most of the infested territory on neglected or poorly-sprayed trees. In 1923, it is reported for the first time from Rhode Island and New Jersey.

So far as I have been able to ascertain through personal examination and from reliable sources, the apple and thorn skeletonizer occupies the following territory in this country at the close of this season—1923:

New York—From Orient Point, at the extreme east end of Long Island, northward up the Hudson River valley practically to Whitehall in Washington county. It extends eastward from the Hudson to the Connecticut and Massachusetts and Vermont line. The pest is established from Glenn Falls southward throughout the whole of Schenectady and Albany counties, is on the west slope of the Catskills in Greene county, is probably in the western part of Ulster county and is present throughout the whole of Orange and Rockland counties. We have found it this year scatteringly as far west in Scoharie county as Cobleskille, a point about fifty-five miles almost due west of Albany.

Careful search earlier in the season failed to disclose the presence of the pest at Johnstown, a point about fifty miles up the Mohawk from Albany. Apparently, from all reports, the insect is not yet present in Essex or Clinton counties —the latter adjoining the Canadian border. Also, none was found by Mr. P. M. Eastman, of the New York Department of Farms and Markets, after a thorough search of neglected apple trees at Malone.

Connecticut—It is now reported present in all parts of the state.

Massachusetts—Prof. A. I. Bourne reports (September, 1923, Insect Pest Survey, p. 280) that apparently the skeletonizer had spread clear across the state and that, while not yet in large numbers, there undoubtedly would be an increased abundance throughout the state as a whole another year.

Rhode Island—Prof. A. E. Stene (Insect Pest Survey, September, 1923, p. 228) reports that it has been found this season from the Connecticut line to a point three-fourths of the distance across the state.

New Jersey—Known to be present so far only in a small orchard at Pompton, which is about eight miles north of Paterson and almost fifteen miles southwest of Suffern, New York, on the border of Rockland county.

Vermont—The skeletonizer is probably present along parts of the western border of Vermont since it has been found within a mile of the border at several points in Washington county, N.Y. I have, however, received no definite report as yet of its occurrence in this state.

Canada—This past summer, Mr. J. P. Spittall, of the Annapolis Royal Laboratory in Nova Scotia, wrote me that he thought the pest was present up there, but understand from Dr. McDunnough, in charge of the national collection at Ottawa, that specimens submitted for determination were undoubtedly not this species. The caterpillars were feeding on thorn.

Such is the brief history of the introduction, spread and present distribution of the apple and thorn skeletonizer in this country. My purpose has been simply to record all that could be ascertained to date concerning its occurrence here.

Food Plants. The apple and thorn skeletonizer seems to prefer to feed upon apple in this country, but has been recorded as also injuring, to a lesser extent, thorn and pear, and, in one instance, peach, sweet cherry and strawberry.

Damage. The injury of the apple and thorn skeletonizer is not equally severe in all parts of its present range, but it is reasonable to conclude that its numbers will undoubtedly increase to a considerable extent in a season or two

in the now lightly-infested territory. The foliage of severely injured trees appears, at a short distance, to be scorched by fire, and in late summer or early fall many of the leaves drop to the ground. The exposed feeding of the caterpillars, their susceptibility to arsenicals and to reduction in numbers by several native parasites, together with the fact that much of the injury is done late in the season, all seem to point to the skeletonizer as an apple pest of only second-class rank. However, the damage is so severe in neglected or poorly sprayed orchards and on roadside trees that it emphasizes the necessity for thorough, consistent spraying wherever the pest is present.

During the past season there were apparently three full broods and a fractional fourth in the Hudson River valley in New York. Occasional moths were still found in houses in Albany as late as October 30th.

Control. The caterpillars feed for the most part on the upper side of the leaves in an exposed manner, and are readily susceptible to even light applications of arsenate of lead. Trees which receive the regular apple spray schedule through the season are but little troubled by the skeletonizer, and it is not a pest to be feared by the commercial grower who gives his orchard reasonable care. It would seem that the calyx application made just after the petals fall is the most effective, but in the Hudson River valley in New York, experience points to the advisability of another application about three weeks later on. In many cases, however, where this later spray has been omitted or where the calyx spray has not been thoroughly applied, an application about the third week in August should be made. This was advised for the control of the third brood of caterpillars in the Hudson River valley during the past season and many growers adopted the recommendation with apparently good results.

TAXONOMIC AND SYNONYMIC TENDENCIES WITH ESPECIAL REFERENCE TO DIPTERA

C. H. Curran, Entomological Branch, Ottawa

To entomologists of every degree and complexion there is, perhaps, nothing so discouraging—or perhaps I should say annoying—as the continual shuffling of species from one genus to another, or the frequent changes of names of many of our common insects. All of us look forward to the day when stability in nomenclature will be a realization. Such hope is not vain, yet we must all feel that it will be some time in the distant future, an era of which we can only visualize as one of vast scientific knowledge, ruled by men who, in all probability, will smile indulgently when they peruse for some obscure detail the works setting forth our own small contributions. Be that as it may, it in nowise alters the conditions of the present, nor has it, in fact, any connection with the subject under discussion.

I hope I may not bore you by the use of technical phraseology; at the same time may I be pardoned if I use such as little as possible. It is not my intention to go into minute detail, but to discuss, as the title indicates, tendencies in systematic entomology and, perhaps to some extent, the influences responsible for them. It is not necessary to dwell upon the work of the pioneers, nor to expose their shortcomings. Such a course would imply perfection in ourselves, and no one knows better than I how imperfect our knowledge and work is at the present time.

Since the appearance of Darwin's "Descent of Man" and "Origin of Species," propounding theories which came as a great shock to mankind, and stimulated those interested in the subject to greater research, the search for "missing links"

between the families and orders in the biological fauna has been greatly intensified. While many have striven, none have succeeded in proving or disproving the theories of Darwin to the satisfaction of all and there we will let the matter rest. It has been mentioned merely because of the great influence it has had upon entomological studies.

From the time of Linne entomologists have attempted to perfect a classification of insects without avail. To-day we have a classification which is, if anything, worse than that of the founder of our science. We have advanced, yes, but in our progress we have become so enmeshed in the complexities of nature that we know not which path to take to find relief. There is no stability in our classification; nor is there any relief in sight so long as the present tendencies prevail. It is safe to say that all the paths which appeared traversible to the students of fifty years ago have been fairly well surveyed, and, in so far as progress is concerned, we have been, until recently, almost at a standstill. It is true that we are finding new forms—new connecting links—in fact, a great many new things to add to the complexity of our problems.

During the past few years new fields have been explored. We have realized the value of the genitalia as a guide to species. Many have over-emphasized it. Just what its ultimate value will be in the tracing of relationships, it is impossible to surmise. Dealing now with the flies in particular, I must say that a great deal has been accomplished quite recently. There has been some effort devoted by American Dipterists to the discovery of new characters which would serve to definitely limit certain groups. Such researches have not been in vain and it appears likely that within the next few years these discoveries will be embodied in a reclassification of the Order which will greatly simplify the determination of species and result in more sharply defined groups, and another step taken towards stability in classification.

It is remarkable, when we look back, to observe that during the past half-century or more, entomologists have been playing the game of "follow the leader." Dipterists have followed Meigen and have used the same means of separating families as prevailed in 1820. Once more I do not mean that we have not advanced, but entomology as a science must be considered as one of the least progressive of all. To-day the implements of agriculture do not in any way resemble the primitive methods of a century ago. In agriculture we have different types of seed to those employed even by our great-grandfathers, but in systematic entomology we are using the same seed and securing the same uncertain results.

Many systems for the classification of the wing veins of insects have been devised and many names have been proposed, but to-day we are no more certain about the origin of a vein in Diptera than was Linne, and probably he did not even consider the matter. For example, the anterior crossvein in the Syrphidæ, or at least in some of them, is not wholly a crossvein, but is a fusion of what is termed the fifth radius and the crossvein. This may not be true in the Muscoid groups, but we have no proof that it is or that it is not, but it is certainly true in the Syrphid genus *Stilbosoma* Philippi from Chile. No classification of the wings of insects is possible without thoroughly considering the world fauna, and anything based upon a regional fauna must be erroneous and misleading, and can only be a centre of controversy. But, nevertheless, all such systems are a means to an end—they do their bit towards attaining the final goal. At the same time most of us prefer a simple terminology, and such must, in the long run, serve the larger number of people and result in greater interest and advancement.

There appear to be entomologists who take the greatest delight in surrounding their specialization with a barricade of complex terminology, perhaps hoping thus to eliminate all contenders for their crown. They have the habit of describing their pets in such a manner that it is next to impossible to penetrate their meaning and arrive at even a remote understanding of their subject. Perhaps I am one of them, and if so I condemn myself without reservation. No one who has had occasion to refer to the monographs by Loew and Osten Sacken can find fault with the simple, concise, clear phraseology. These men knew how much to say and how much to omit, an accomplishment which we should to-day attempt to emulate. Many of us appear to lose sight of the fact that we are not, or at any rate should not be, working for our own glory. If by doing good work we accomplish glory, that is another matter, and something to our credit, but to work solely for that glory and to fancy we have attained it, is an admission that we have failed in an unworthy cause. The main need in entomology to-day is not the building up of obscure terminology, but a comprehension of English, or whatever language we speak, which will enable us to place our findings before the world in such a manner that they may be comprehended by even the poorest student.

Most entomologists have had frequent occasion to use keys or tables of species, genera or families, and few, I think, have not raved at the inconsistencies of the delineator. No doubt I have caused some such scenes myself, and if I have not, it is through no fault of my own. The making of a key is, in my opinion, the most difficult task we must face. It is easy to concoct one which will suit our own enlightened mind, but others may be left almost entirely in the dark. The trouble, I believe, is due to the lumping of various characters in the antitheses, instead of relying upon one character, and the failure to place doubtful specimens under more than one section.

There are tendencies to "lump" and to "split." What is their effect? Which is the more desirable? In my opinion the lumping of species has done much more to confuse the student than any other procedure. This is especially true in the Muscoid groups where, very often, many legitimate species have been placed in the synonymy merely because the descriptions read alike. Unfortunately some workers will do their utmost to make a description fit a species when they are sure it does not, and there are others who will insist upon arriving at a conclusion that the author was in error in not mentioning characters which the specimen under examination exhibits, or that the colours were wrongly given, and the specimen must be that species, and so determine it. Why it should be concluded that an author meant yellow when he said brown, or grey when he said green, I do not know, but I do know that such is often the case, judging by determinations I have seen. Of course, some writers do appear to mean reddish when they say yellow or yellow when they say white, so perhaps there is some excuse for the aforementioned conclusion. One of the requirements for all taxonomists should be the passing of a test for colour-blindness.

The "splitters" are often roundly condemned, yet they do not create nearly as much trouble as the "lumpers." The chief cause of complaint against the "splitter," who is really advancing science by looking deeper than the average person, lies in the persistency of the student to make two species out of one. I have spent many hours trying to make slight variants fit the description of one or two apparently closely allied forms, only to feel like kicking myself soundly at such time as the other species came to hand. The "splitter" is a keen student as a rule, and even if his enthusiasm does sometimes carry him beyond a reasonable limit, he may be excused, as he does not as a rule cause

the confusion of the "lumper." I do not think, however, that there is any excuse for carrying on the splitting of genera to such an abnormal degree as has been done in the Muscoidea. I gather from my studies in this group that some students consider that there can be only one species in a genus, unless it should happen by some inavoidable accident that it is practically impossible to tell the two species apart, in which case there *might* be two. At any rate it must be admitted that if we are to follow the lead shown here, we shall have to entirely discard genera and know the myriads of insects by their Christian names. What we need is not numerous genera, but more definite generic limitations. We must not lose sight of the fact that families and genera are an aid in determining the species—the species is the ultimate, the genus, family, and order the means of attaining it.

Thus far I have not dealt with synonymy, a phase of entomology which is extremely perplexing. It is discouraging to discover that an old and well-known genus is not that genus at all, but some other one, or that some other one is that one and that one cannot be it. If I do not make myself clear it is entirely because the subject is complex and rather inexplicable. At any rate, the rules of nomenclature demand that the oldest valid name for a genus or species be used and many changes are due to this fact. In other cases the name may be pre-occupied. This practice is, of course, to give honour where honour is due and as such is a commendable one.

I am of the opinion that a great many of the changes are unwarranted. Certainly great caution should be used before proposing an older name to replace a well-known one. I believe that a great many species attributed to the older writers and considered as genotypes are unrecognizable, either from the description or due to the fact that the writer had more than one species before him in describing a species or in placing it under a generic name. Verrall has remarked upon the large number of Linne's species which are recognizable. I do not agree, but consider that the majority of the species described by the first systematist are recognizable due to the courtesy of subsequent students. I heartily agree that the names should be attributed to Linne—we cannot do sufficient to honour him—but I repeat that every care should be taken before invalidating a popular genus in favour of a genus founded on a species proposed by an early worker.

There are few people in America who can separate the species of *Syrphus* accurately and I venture to say that anyone founding a genus on one of the species allied to *S. ribesii* would find, upon close examination, if he had a large series of specimens, that there was more than one species in the series. Further, if the specimens were distributed, so that only two or three remained, all of the same species, and they were examined, it might be found that they did not agree with the generic description in some respect, yet being the alleged genotype, the generic concept would be changed to agree with them, whereas the actual genotype would be lost. I admit that this is possibly a far-fetched example, but it is certainly not any more erroneous to believe that such a case has often happened than to accept determinations over a hundred years old, or genera based upon such determinations. And even to-day we sometimes determine species wrongly! It is a simple matter.

No one takes more pleasure than I in tying down an old name. I glory in the fact that I have accomplished something much better than the addition to the lists of several species new to science. But at the same time I do not believe in *making* things fit a description and am sure that in such cases a grave error is committed. I believe that there is a tendency to-day to ignore

for the present unrecognizable species and to describe as new those insects which might be the species described, or might not. Such a course permits us to gain a complete knowledge of our fauna, but it creates work for those who take pleasure in establishing described species. I believe that such a course is desirable at the present time, provided sufficient care is used by the student. Unfortunately the European species of insects are not well understood—there are hundreds of valid species in the synonymy—and many types of American species are in Europe, so that one must always bear in mind the fact that a new American species may have been described years ago in Europe and placed in the synonymy. The securing of European specimens is not always of the supposed value, because one might easily be sent a species, which is not typical, although it may agree insofar as the European concepts of the species is concerned. By this I mean that there are often included under one name a great many species. I have found eight species of *Ocyptera* included under the name *carolinæ* and fifteen species of *Echinomyia* under the name *algens*, as understood by Coquillett. So I ask, is there not a chance of receiving any one of fifteen species when representatives of an European Tachinid are requested.

We cannot overcome the need of changing names; we must have regulations which will ultimately give us stability, but we can at least use discretion before proposing a change, and we can also hope that the fund of undiscovered works and obscure genera, species, and preoccupied names of old genera may soon become exhausted.

MISCELLANEOUS NOTES ON GRAPE LEAF HOPPER CONTROL

William A. Ross, Dominion Entomological Laboratory, Vineland Station

In discussing the control of the grape leaf hopper at the last annual meeting of the Entomological Society of Ontario, we referred to certain field tests and observations which indicated that nicotine sulphate will destroy leaf hopper eggs. In order to secure more precise data regarding the susceptibility of the eggs, some ninety spraying and dusting tests with a total number of 9,617 eggs of known age were conducted by Mr. W. Robinson in the laboratory last winter. On account of the fact that *Erythroneura comes ziczac* was present in large numbers in the immediate vicinity of the laboratory, this variety was used in most of the experiments, only a few comparative tests being conducted with *E. comes*. The hoppers were placed on one-year-old Clinton vines, and were confined by means of celluloid cages. As the Clinton grape has little pubescence on the under sides of the leaves, no difficulty was experienced in locating and counting the eggs. The sprays were applied with a hand sprayer, care being taken to thoroughly coat the under sides of the leaves, and the nicotine dust with a hand blower. The results obtained from these tests are presented herewith in tabular form:

Effect of Nicotine on Eggs of E. Comes Ziczac

Table 1—Nicotine Sulphate 1-1600, Hydrated Lime 5 Pounds—40 Gallons.

No. of tests	No. of eggs	Age of eggs when treated	% killed in egg stage	% nymphs which died while hatching*	% total mortality
9	511	1-2 days	29.7	48.9	78.6
4	533	4 "	61.9	36.3	98.3
9	480	9-10 "	68.5	1.5	100
5	558	18-19 "	84.4	15.6	100
27	2,082				

* Nymphs succumbed in process of hatching. None of them actually emerged from the eggs.

Table 2—Nicotine Sulphate 1-1600, and no Lime.

3	378	1-2 days	15.1	49.7	64.8
2	354	9-10 "	22.6	46.6	69.2
5	732				

Table 3—Nicotine Sulphate 1-1200, Hydrated Lime 5 Pounds—40 Gallons.

6	568	1-2 days	47.2	52.8	100
5	513	9-10 "	57.3	42.7	100
2	538	18-19 "	67.6	32.4	100
13	1,619				

Table 4—Nicotine Sulphate 1-800, Hydrated Lime 5 Pounds—40 Gallons.

2	477	1-2 days	63.5	36.5	100
3	519	9-10 "	71.8	28.2	100
2	491	18-19 "	78.4	21.6	100
7	1,487				

Table 5—†Nicotine Dust—2.2 Per Cent. Nicotine.

No. of tests	No. of eggs	Age of eggs when treated	% killed in egg stage	% nymphs which died while hatching*	% total mortality
3	482	1-2 days	8.8	20.1	28.9
3	508	8-9 "	20.2	33.0	53.2
4	528	18-19 "	26.9	46.7	73.6
10	1,518				

Table 6—Checks.

8	602	.....	5.7	6.3	12.0

Effect of Nicotine on Eggs of E. Comes

Table 7—Nicotine Sulphate 1-1600, Hydrated Lime 5 Pounds—40 Gallons.

No. of experiments	No. of eggs	Age of eggs when treated	% killed in egg stage	% nymphs which died while hatching *	% total mortality
5	516	9-10 days	85.7	14.3	100
6	480	Newly laid	65.0	26.0	91.0
5	477	About to hatch	67.1	32.9	100
16	1,473				

Table 8—Checks.

2	104	.....	11.5	0	11.5

These laboratory experiments demonstrated that newly-laid eggs are somewhat less susceptible to nicotine than those over eight days old; that nicotine dust is unsatisfactory as an ovicide; that the addition of lime apparently increases the ovicidal value of the nicotine sulphate‡; that nicotine sulphate

* Nymphs succumbed in process of hatching. None of them actually emerged from the eggs.

† Niagara D-11.

‡ See tables 1 and 2. A shortage of plants made it impossible to carry on a larger series of tests of nicotine sulphate without lime.

1-1,200 in combination with lime will destroy the eggs in all stages of development, and that this strength of nicotine is 100 per cent. effective.

Having satisfactory evidence that the eggs are as readily destroyed as the nymphs, our next step was to ascertain when the leaf hopper spray may be applied to best advantage. With this object in view, three infested blocks of grape vines at Barnesdale, St. Catharines, were sprayed at different times with nicotine sulphate (¾ pint—100 gals.) and Bordeaux mixture. The first block was sprayed on July 6th, about eight days after Concord blossoms fell, and the other two blocks were treated on the 13th and 20th respectively. The spray mixture was applied by means of a triplex Bean outfit, with two short rods and angle nozzles, and pains were taken to thoroughly wet the undersides of the leaves. The results* secured from this experiment were very gratifying —in the three blocks the leaf hopper was reduced to negligible proportions. Even in late summer only odd leaf hoppers could be found on the vines, and the foliage remained green all season, whereas, in the "check" grapery, the foliage showed severe leaf hopper injury from early August to the end of the season.

The majority of Niagara grape growers with infested vineyards sprayed their vines as recommended by us during the period July 11th to the 21st, and in all cases where the work was done properly the hopper was reduced to insignificant numbers. At Barnesdale, for example, where there are some seventy acres in grapes, and where conditions, in the form of bush-land adjoining the vineyards, are particularly favourable for leaf hopper, early and thorough spraying almost completely eradicated the insect.

From our experience in combating this insect during the past two years we have learned several things of importance, viz.:

(1) That it is inadvisable to postpone spraying until the majority of the eggs have hatched, because this permits too many of the nymphs to transform to the adult stage.

(2) That as hopper eggs are susceptible to nicotine, *the spray may be applied shortly after the overwintering adults cease egg-laying.* Our observations indicate that egg-laying ceases about the time Concord grape blossoms drop, so that, allowing a safety margin of several days, *spraying operations may be commenced about one week after the fruit sets.*

(3) That there is a period of at least two weeks when very effective work can be done (1923—July 6th to 21st). The fact that there is a considerable amount of latitude as to when the application may be put on, makes it possible, in sections where the root worm is a serious pest, to kill two birds with the one stone by combining the nicotine with one of the root worm sprays, thus saving the time and labour of a special application. Likewise, in vineyards infested with the grape berry moth, the leaf hopper spray can be made to coincide with the second application for the moth.

(4) That, in addition to those mentioned above, the "egg-spray" (applied after cessation of egg-laying) has the following advantages over the "nymph spray" (applied when the vast majority of the eggs have hatched): it practically eliminates the second brood; it lessens the danger of staining the fruit with Bordeaux mixture; it is usually of more value in checking plant diseases; it simplifies spraying operations, and saves material, because it is put on before the heavy new growth is made.

* We had planned, as suggested by Mr. Van Dine, Pennsylvania State College, to present the results in the form of brix readings of grape juice, but we were unable to do this because a severe hail storm on August 24th seriously injured the crop in our experimental plots.

THE NEW REGULATIONS UNDER THE DESTRUCTIVE INSECT AND PEST ACT

Leonard S. McLaine, Division of Foreign Pests Suppression; Secretary, Destructive Insect and Pest Act Advisory Board, Department of Agriculture, Ottawa

The complexities that have arisen in the past twenty-five or fifty years in connection with the exchange of commodities throughout the entire world, also the increase in the diversity of established trade routes, and the danger that naturally results from the movement of products infested with pests and diseases, have made it necessary for man to take every reasonable precaution to prevent, in so far as possible, the introduction of new species of pests and diseases into uninfected areas. Whether it is due to a keener sense of observaon the part of the general public, or whether it may be regarded as an established fact, nevertheless, there has been apparently a great increase in the amount of damage caused by insect pests and plant diseases during the past few decades.

Although it is realized that all the pests responsible for damage on this continent are not of foreign origin, many of our worst enemies are not native to this hemisphere. It is also known that there are many very serious pests present in the older portions of the world which might prove to be most undesirable guests if they were permitted to gain a foothold on our soil. Apparently one of the most feasible means of controlling the introduction of menaces such as these is by enacting laws which restrict or prohibit the importation of products and commodities likely to harbour these insect pests and plant diseases. It has been frequently stated that we on this side of the water are suffering from too much legislation, of all kinds and description, and while that may be true, I am afraid that we shall have to continue being burdened by pest legislation, or until such time as it is realized by all nations and peoples that only products free from pests and diseases shall be offered for exchange. A step in this direction was made in 1914 by the International Phytopathological Conference, which was held in Rome. Very unfortunately the Great War made it impossible to continue the discussions or bring into general operation some of the resolutions that were passed at that time.

Questions in relation to legislation, however, were discussed at the recent International Conference on Entomology and Phytopathology, convened by the Dutch Government at Wageningen, Holland, in June, 1923, and the Dominion Entomologist, Mr. Arthur Gibson, who attended this conference and took part in the discussions, has informed me that the following resolution was adopted:

"The representatives of all nations assembled at this International Entomological and Phytopathological Conference, June 25th-30th, 1923, at Wageningen, desire to place themselves on record as in full agreement with the essentials of international trade and commerce in living plants and plant products, namely, reasonable freedom from all insect pests and plant diseases of all kinds of materials imported into, or exported from any country."

The history of the introduction of the major foreign pests now present on this continent is too well known to need repetition, and it is also recognized that all the pests and diseases were not imported on such products as nursery stock. An excellent example is the European Corn Borer, which circumstantial evidence showed was imported on broom corn from Europe. This has been substantiated by the finding of an outbreak of this insect at one of the ports of importation for broom corn and where it was held for sterilization. As a consequence, pest legislation should only be passed and brought into force after a

careful study of the entire situation has been made. This will entail an investigation of the product from its source to its ultimate destination, the trade routes it has to follow and whether it is an essential commodity or not. Until this is done, mistakes are likely to be made and disastrous results follow. Crises arise, however, which make it imperative to take immediate action and financial loss may result, but such cases are very fortunately comparatively infrequent. Care must also be taken to base the legislation on a strictly scientific foundation and not to be influenced by commercial possibilities. This is a point which needs special attention in these days of keen trade rivalry and competition.

Insect legislation in Canada dates back to 1883, when an Act was passed in Prince Edward Island to prevent the spread of the Colorado potato beetle. With the appearance of the San Jose scale in British Columbia, legislation was passed in 1894, empowering the Horticultural Board to inspect and treat plants and plant products for pests and diseases. Four years later the first Federal Act was passed, known as the San Jose Scale Act. This law, together with the regulation, prohibited the importation of host plants of this insect from the United States, Australia, Japan and the Hawaiian Islands. With the discovery of effective fumigation methods, the law was modified in 1900 and permitted the importation of fruit stocks, etc., provided they were treated at one of the several Federal fumigation stations.

As a result of a serious outbreak of the brown-tail moth in France, and the finding of many nests on shipments of imported nursery stock, an active campaign was started to inspect all foreign shipments of this character. The following year, 1910, the Destructive Insect and Pest Act was passed and all Federal legislation since that time has been issued as regulations under this law.

The Act stands as a monument to the men who were responsible for its preparation, for although innumerable regulations have been passed in accordance with its authority, and on all manner of subjects, it has never been necessary to recommend an amendment to the Act itself.

Two years ago it was realized that the question of insect and pest legislation had assumed such a complicated aspect and involved so many different problems, not only as regards plant life but also trade and manufacturing interests, that in order to better co-ordinate opinion and effort it was deemed advisable to create an Advisory Board to consider such matters. On April 21st, 1922, the Destructive Insect and Pest Act Advisory Board was constituted, and five officials of the Department of Agriculture were appointed members. The Board is not empowered to pass legislation, but may recommend to the Minister of Agriculture any changes which are considered advisable and in the public interest and, in addition, may call upon other officials of the Department of Agriculture or other persons to act in an advisory capacity. Furthermore, the Board does not administer the various regulations under the Act, their administration being left to the Branch particularly concerned.

After careful consideration covering more than two years, including much investigation, and advice sought from the horticultural interests from one end of Canada to the other, including public hearings, the Board recommended to the Minister of Agriculture a general revision of the regulations.

On September 1st, 1923, the new regulations went into effect. These consist of a series of general regulations and fifteen foreign and six domestic regulations. The general regulations consist of fourteen sections and are more or less comprehensive, but are of particular interest in that they empower the Department to inspect or examine any plants or plant products offered for

entry into Canada, which if found infested with pests or diseases may be refused entry, treated or destroyed. They also are of particular value in connection with the handling of shipments not covered by any special regulation or order, such as grains infested with weevils, broom corn, dried fruits, etc. Provision is also made for the inspection of export shipments, the powers of inspectors, interfering with an inspector in the performance of his duties, holding of infested shipments, the right to trespass, the selling of infested material, the importation of plants for scientific purposes, and the paying of compensation.

The foreign and domestic regulations deal with specific problems; they may be increased in numbers, amended or modified as occasion demands. They are issued in separate form and, it is hoped, are worded so as to be readily understood by the general public.

In adopting this form, the Department is of the opinion that the average individual may take a greater interest in the safeguards that have been enacted for his benefit. An inquirer will be able to see just what he may or may not do without the necessity of wading through endless pages of laws which are of no particular interest to him.

Under the foreign regulations the importation of nursery stock from foreign countries is governed. All plants for ornamental purposes or propagation, except seeds, are now classified as nursery stock and permits are necessary to import such shipments. Nursery stock from countries other than the United States may enter only through certain ports, and all shipments are subject to inspection. It is hoped by this means to prevent, if possible, the further introduction of noxious pests and diseases.

The foreign regulations also restrict the importation of plants from the Hawaiian Islands on account of the Mediterranean fruit-fly; the importation of nursery stock, forest and quarry products from the New England states on account of the gipsy and brown-tail moths; the importation of corn, cut flowers and other plants from the European corn-borer areas in the United States. A total prohibition has been placed on the importation of potatoes from countries and localities infected with the potato wart disease; all five-leaved pines and currants and gooseberries from all parts of the world on account of the white pine blister rust, chestnuts and chinquapins from Asia and the United States on account of the chestnut bark disease; European buckthorn and certain species of barberries from all countries on account of the crown rust of oats and the black-stem rust of wheat; alfalfa hay from the alfalfa-weevil-infested districts; plants with soil from Asia on account of the Japanese beetle and other soil-infesting insects; all species and varieties of douglas fir, hemlock, and larch from countries other than the United States on account of the newly discovered douglas fir disease; peach stock and hazel, cob and filbert from certain states into British Columbia on account of peach yellows and eastern filbert blight.

The domestic quarantines deal with the movement of nursery stock in the apple-sucker-infested areas in Nova Scotia; the movement of corn from the European corn-borer areas in Ontario. They also coincide with the foreign regulations prohibiting the movement of pines and currants and gooseberries into Western Canada from the white pine blister rust areas in the east, and similarly with the importation of European buckthorn and certain barberries on the prairies, and peach stock and hazel, cob and filbert into the Province of British Columbia from Eastern Canada.

THE VALUE OF NATURAL ENEMIES OF INJURIOUS INSECTS

A. F. Burgess

A belief has become firmly established in the public mind that insects are held in check by parasites under ordinary conditions. This has been taught in the colleges and institutions of learning and has been given prominence in the published works of many entomologists. The usual formula proposed is that when an insect is abundant its parasites increase enormously and bring about control, after which enormous mortality results to the parasites on account of scarcity of the proper host and that after a period of years the latter increases again and damage results. It is a well known fact that some insects, which are innocuous in certain parts, at least, of the regions which are their native homes, become excessively abundant and cause havoc after becoming established in a new environment. The above statements indicate the reasons for the attempts that have been made in this country and elsewhere to introduce natural enemies to control insect pests.

We must all admit that this subject has been given scanty consideration when its importance and complexity is considered. It is the purpose of this paper to consider some of the factors involved in the hope that more attention may be directed to some phases of this difficult problem.

Everyone understands that the food supply of any organism is one of the determining factors of its survival, but it is fair to assert that the food and feeding habits of many injurious insects have been studied only in a casual way.

Intensive study of the food preferences and what might be called the incidental food of each pest is often of great importance, not only as a means of deciding effective methods of control but of weighing the influence of parasites or predatory enemies on the abundance of any pest.

As a result of a careful study of the food plants of the gipsy moth in New England carried on for several seasons prior to 1900, it was determined that the larvæ of this insect fed upon foliage of most of the trees and shrubs in the region where it was then present. The possibility of the food being unsuitable to newly hatched caterpillars, although entirely satisfactory to those of a later stage, was not considered. Later experiments conducted by Mr. F. H. Mosher and his assistants at the Melrose Highlands Laboratory, supplemented by careful records made of the feeding habits of these caterpillars in the field, have demonstrated that a very decided preference is exhibited by different larval stages of this insect. This has given valuable suggestions as to control methods that are feasible and will be useful when an attempt is made to determine the proper role that parasites will play in gipsy-moth control.

These experiments have made possible the division of the food plants into various classes based on the food preference of the larvæ in different stages and indicate clearly that some plants are merely incidental hosts of this insect. It is easy to accumulate a long list of food plants of an insect if all plants that may be nibbled a little here and there are recorded. Such information is frequently inaccurate, and may be misleading unless the details are carefully worked out. Because a few individuals feed on a given plant when the circumstances are such that no other food is available, it does not necessarily follow that normal reproduction of a pest or continued damage will result.

One of the essentials of having a basis for determining the normal increase of an insect under field conditions must rest on a thorough knowledge of its food plants and feeding habits. Accurate and detailed information on this phase of insect control is in many cases incomplete.

The entomologist is also confronted with climatic conditions which in many sections of the country are most variable. Meteorological data is often most difficult to interpret satisfactorily in so far as its effect on insect increase is concerned.

Few seasons are comparable as to weather conditions, and when information is tabulated covering a decade or more showing the effect of any control measure, be it natural or artificial, which indicates that all the results point in the same direction, there is evidently something wrong, either with the compiler or the compilation.

It is said that statistics can be used to prove almost anything that is desired, and we as entomologists should exercise great care so that the conclusions that are drawn will be well balanced and will stand the test of time.

In some sections of North America weather conditions remain rather constant for considerable periods, and this simplifies the weather factor. In most sections, however, these conditions are not so stable and more complications result.

Both temperature and humidity are important, and react on the insect in all its stages. Our knowledge is very limited along these lines, although here and there attention has been given to the behaviour of some of our insect pests from this angle.

There is great variation in different species in this respect. Our experience in shipping parasites and predaceous insects has been that lack of a reasonable amount of moisture usually causes high mortality. This is particularly noticeable when the insects are not dormant.

Certain Tachinid puparia do not require moist conditions. They can be shipped without special precautions of this sort, and can be handled successfully with a minimum amount of care. Excessive temperatures often cause high mortality among insects. In the case of the gipsy moth, high temperatures, particularly if accompanied with insufficient or unsatisfactory food, furnish conditions favourable to an outbreak of the wilt disease which frequently sweeps away large numbers of the caterpillars.

Late frosts shortly after hatching, particularly if accompanied with heavy, beating rains, frequently result in the destruction of many small larvæ, due to temporary shortage of food supply or the inability of the small caterpillars to reach food after they have been washed or blown from it. The best records that we have been able to obtain indicate an enormous rate of mortality in the first and second larval stages. When weather conditions are very unfavourable in the spring it is doubtless true that only the most vigorous larvæ survive. In the winter, when the temperature drops below 20° F., gipsy moth eggs are killed unless they are protected by snow or ice or have been deposited in concealed situations. This has been demonstrated by the experimental work conducted by Dr. J. N. Summers.

I have referred to the gipsy moth because of more intimate personal knowledge of this insect. The same factors are present and affect other insects to a greater or less extent.

There are other factors which have a bearing on the increase of insect life, but those already mentioned are among the most important.

From what has already been said it would appear to most persons, except the trained entomologist, that insect life would be sufficiently held in check without help from other sources. This is not the case, however. The novice needs only to make collections of insects that are attracted to strong lights during the summer to be convinced that widespread havoc would result were

no other checks on their increase available. Frequently thousands of specimens of a single species of leaf-defoliating insects may be taken at a single light trap, in spite of the fact that no appreciable injury to its favoured food plants is noted throughout the year.

The answer is that natural enemies hold these species in adjustment so that none but the expert fully realizes their presence. Because no serious damage is done, there is little demand or opportunity to study the battle for survival that is continually being waged by these contending forces.

Because of insufficient study of these problems, which must of necessity be carried on for a series of years, it is difficult to speak with assurance of the value of any particular natural enemy.

Again my remarks will be directed to the gipsy moth investigation.

From 1869, when the insect first became established in North America, until 1889, when it became so destructive that its identity became known, there was a relatively slow increase, and all the native natural factors that might function in its control were operative. During the next ten years the State of Massachusetts made an attempt to exterminate the insect, which was found to occur in an area of about 200 square miles. This work resulted in an enormous decrease of the species, and when the work was discontinued by the state, not only was it impossible to find defoliated trees in the infested area but the egg clusters and caterpillars were so scarce that the public deemed the expense unnecessary. In fact a special committee of the Massachusetts Legislature reported, after numerous hearings, that the insect need not be considered a serious pest and that "we find no substantial proof that garden crops or woodlands have suffered serious or lasting injury or are likely, with that precaution or oversight which prudent owners are disposed to give their own interests, to be subjected to that devastation which one would have the right to anticipate from these reports. It appears to us that the fears of the farmers throughout the State have been unnecessarily and unwarrantably aroused, evidently for the purpose of securing the effect of those fears upon the matter of annual appropriations. . . . We do not share these exaggerated fears and the prophecies of the devastation and ruin are unwarranted and in the most charitable view are but the fallacies of honest enthusiasts."

During this period a small force of experts made careful studies, both in the field and in the laboratory, to determine the value of natural enemies and the part they were playing in gipsy moth control. The results were not promising. A number of birds that feed on hairy caterpillars were found to attack the gipsy moth, and toads and skunks were occasionally reported as feeding on the species. A few native parasitic and predaceous enemies were noted, but their abundance and the frequency of their attack gave little promise of relief.

The wilt disease must have occurred in the field during this period, but the records of its presence are very meagre. At any rate it was not abundant enough to attract the notice of experts or give promise of decreasing the severity of bad infestations.

No attempt was made to introduce the natural enemies of the gipsy moth from Europe during the years when extermination was being attempted, as it was believed that the chances of control by parasites would be negligible when exterminative work was under way.

In the five years following the discontinuance of the work (1900 to 1905) the insect increased and spread enormously and experience showed that it could not only defoliate and kill trees, but that it was a veritable scourge to the people in the region that was heavily infested.

Work was again resumed by the state of Massachusetts in order to control the insect. The territory infested had increased from 200 to over 2,200 square miles, and it was soon found that the insect was present in eastern New Hampshire and in Rhode Island. Native natural enemies during the period when no field work was done had failed to increase and data collected from 1905 to 1907 was very similar to that secured from 1890 to 1900. The wilt disease was more prevalent, however, particularly in heavy infestations where overcrowding and shortage of food occurred.

The brown-tail moth, a European insect which was discovered in the suburbs of Boston in 1897, became extremely abundant and destructive by 1905 and field control and the introduction of natural enemies was attempted as a part of the gipsy moth work.

Beginning in 1905 an effort was made to import the natural enemies of the gipsy moth from Europe and Japan. This was arranged as a co-operative project between the State of Massachusetts and the U.S. Bureau of Entomology and later this project was turned over to the Bureau.

It was organized in Europe by Dr. L. O. Howard, Chief of the Bureau of Entomology, who secured the co-operation of many prominent European entomologists, and under their direction various parasites and predatory insects were shipped to Massachusetts.

During the next few years considerable material was sent as a result of this arrangement, and a number of experts were sent abroad by the Bureau to obtain parasites of the gipsy moth and the brown-tail moth.

Mr. W. F. Fiske spent two seasons on this work, most of his collections being made in Italy. He was assisted during one season by W. R. Thompson, Harry S. Smith and L. H. Worthley. The latter spent a good share of his time in Germany. Professor Trevor Kincaid spent one summer each in Japan and Russia on similar work. As a result of arrangements which he made with Japanese entomologists, it was possible to introduce *Schedius kuvanæ*, a parasite of the gipsy moth eggs. Dr. J. N. Summers continued the parasite work in Germany during the summer of 1914. The work was interrupted during the war but was resumed in 1922, Mr. S. S. Crossman carrying on work in European countries, particularly in Germany, and Dr. Summers similar work in Japan. The latter returned to Japan in 1923 and Messrs. Crossman and R. T. Webber took up work in Germany, extending operations to Spain, Austria, Hungary and Poland.

As a result of all these operations many parasites of the gipsy moth have been shipped to Massachusetts. Some of the most noteworthy were large shipments of *Chalcis flavipes* and *Apanteles melanoscelus* that were sent by Fiske from Italy, and a large number of Tachinid puparia that was secured by Crossman and Webber in Austria during the present year and *Apanteles fulvipes* shipped by Summers from Japan. A large percentage of the material from Austria was *Parasetigena segregata*, a species that has not yet become established in America. Of the large shipments sent by Fiske, *Chalcis flavipes* has not become established, while *Apanteles melanoscelus* is increasing satisfactorily in the infested region. *Apanteles fulvipes* has been colonized but whether it will survive and increase is problematical. Other parasites together with the predaceous beetle, *Calosoma sycophanta*, were received from European collectors and some of them have become firmly established.

The accompanying chart indicates species that have been imported and those that have become established.

FOREIGN PARASITES OF *Porthetria dispar* L. AND *Euproctis chrysorrhœa* L. LIBERATED IN AMERICA
First column of figures shows the number of parasites of foreign origin actually liberated.
Second column of figures shows the number of parasites subsequently liberated.
Third column of figures shows the total number of parasites liberated.

Name of Parasite	Foreign stock	New England stock	Totals
Anastatus bifasciatus Fonsc	138,680	53,032,500	53,171,180
*Apanteles fulvipes Hal	87,040	.....	87,040
Apanteles lacteicolor Vier	55,000	245,000	300,000
Apanteles melanoscelus Ratz	23,000	58,508	81,984
Apanteles solitarius Ratz	22,546	.....	22,546
Blepharipa scutellata R. D	5,109	71,081	76,190
Carcelia gnava Meig	15,788	.....	15,788
Chalcis flavipes Panz	20,154	.....	20,154
Compsilura concinnata Meig	9,000	104,831	113,831
Crossocosmia sericariæ Corn. and C. flavascutellata Shiner	700	.....	700
Dexodes nigripes Fall	5,212	.....	5,212
Ephialtes examinator Fabr. and E. compunctor L.	402	.....	402
Eudoromyia magnicornis Zett	4,568	.....	4,568
Eupteromalus nidulans Foerst	354,000	.....	354,000
Hyposoter disparis Vier	12,543	.....	12,543
Masicera silvatica Fall	23	.....	23
Meteorus versicolor Wesm	3,113	7,697	10,810
Pales pavida Meig	582	.....	582
Parasetigena segregata Rond	1,187	.....	1,187
Parexorista cheloniæ Rond	9,742	.....	9,742
**Schedius kuvanæ How*	†45,382	20,206,091	20,251,473
Tachina japonica Towns	471	.....	471
Tachina larvarum L	2,036	.....	2,036
*Telenomus phalænarum Nees	4,650	.....	4,650
*Trichogramma, spp	76,000	.....	76,000
Tricholyga grandis Zett	8,766	.....	8,766
Zenillia libatrix Panz	161	.....	161
Zygobothria gilva Hartig	7,502	.....	7,502
Zygobothria nidicola Towns	3,500	.....	3,500
Totals	917,633	73,725,708	74,643,341

Some of these species were new to science and, in the case of most of them, the life history and habits had not been thoroughly investigated. This has required much work in order that they might be handled with the greatest effectiveness.

Time will not permit a discussion of the value of the individual species concerned, but a few points should be mentioned to illustrate the importance of having full information concerning the biology of natural enemies.

Calosoma sycophanta feeds upon caterpillars and pupæ of numerous insects, but particularly on the gipsy moth. The adults climb trees freely where they do most of their feeding. In New England there are several native species of Calosoma that are good climbers and their larvæ are also predaceous. The reason why *Calosoma sycophanta* is more effective than any of the native species as an enemy of the gipsy moth is because the larvæ of this beetle are able to climb trees that have rough bark and feed upon gipsy moth caterpillars or pupæ that may be massed on the trunks or at a point where the limbs branch therefrom.

† These 45,382 Schedius were developed at the laboratory in seven generations from twelve adults which were obtained from Gipsy Moth eggs from Japan.

* Species marked with asterisk were greatly increased in number by breeding at laboratory before colonizing. Species in italics are positively established.

The larvæ of native Calosomas do not climb well and secure practically all their food on the ground. This habit limits their ability to increase rapidly and renders them ineffective as an enemy of the gipsy moth.

The females of *Compsilura concinnata* puncture the integument of the caterpillars and deposit their larvæ in the body cavity. This Tachinid attacks upwards of 100 different species of native larvæ. It should be no more effective as an enemy of the gipsy moth than some of our native species such as *Tachina mella*, except for the fact that the latter deposits eggs on the caterpillars, and these usually are cast off with the molted skins before the maggots hatch and attack the host.

Anastatus bifasciatus attacks the eggs of the gipsy moth and the females may frequently be found busily engaged in ovipositing as the eggs are being laid by the gipsy moth female.

In fact, all of the species that have become established are fitted by special adaptation or habit to prey upon the gipsy moth as their principal host.

What then has been the effect of the introduction of natural enemies on the gipsy-moth problem?

It is true that the area known to be infested has increased rather rapidly during the last few years. This is due to a considerable extent to particularly favourable seasons for dispersion of the small larvæ of the insect by windspread. Shortage of men and low purchasing power of funds during and since the World War have also rendered the problem of prevention of spread of the insect unusually difficult.

In the area that has been longest infested there has been a heavy reduction of the number of favoured food plants, due to their injury or death caused by the insect, or by cutting operations carried on by owners. This has not been sufficient of itself to bring about control. There has been during the past few years a gradual increase in the numbers and effectiveness of most of the well-established introduced natural enemies and during the past season the records show a greater percentage of benefit than at any time heretofore. This statement does not apply to most of the territory that has become infested in the last ten or fifteen years, although the different parasites are being colonized as rapidly as possible in the lightly infested region.

These facts indicate that natural enemies are of great value, and show that the work that has been done thus far has been extremely beneficial. The question naturally arises as to what the future results will be. While it is possible to theorize along this line, the problem is so complicated that predictions are almost pure guesswork. We know what has been done in the past. We hope for even better results in the future, but we must never lose sight of the fact that in spite of the natural enemies the gipsy moth has in its native home, it is a pest of prime importance.

Heavy defoliations occur in Europe periodically. The best information that has been secured indicate that they come at five to eight-year intervals. The conditions under which the gipsy moth increases to a point where it causes extensive defoliation in Europe have not been studied as thoroughly as the importance of this problem demands. A start has been made along this line during the last two years and it is hoped that sufficient data may be secured in the future so that the value of the different factors favouring increase or decrease may be more accurately measured. With this knowledge available, it may be possible to come to a more accurate conclusion as to the ultimate status of the gipsy moth in America after its natural enemies have been introduced and reach their maximum of efficiency. It is possible to speculate and theorize indefinitely

as to which enemy is the most promising and which in the end may be the most effective. What is needed in this respect is facts and these can only be secured by experimentation, the methodical collection and proper weighing of field data and good judgment in drawing conclusions.

The policy has been followed of securing all natural enemies of the gipsy moth that gave any promise of becoming successfully established in America, in the hope that as great or possibly greater measure of control by natural enemies can be secured than exists in the native home of the insect.

Few will doubt the wisdom of this policy, and probably fewer would adopt a different plan were they responsible for the management of the work.

I have dwelt at some length on the problem of natural enemies as applied to the gipsy moth work. Time has made it impossible to mention details. The project is the largest of its kind that has ever been attempted, and the data that has been obtained and the results thus far secured should be useful to all interested in the control of insects by natural means. The work thus far indicates that enormous progress has been made along this line and demonstrates it to be one of the promising and valuable fields that should be thoroughly investigated by economic entomologists.

A brief summary may be helpful:

1. Natural enemies are a powerful means of controlling most insects.

2. Insects imported from foreign lands leave their natural enemies behind and under favourable conditions are capable of more rapid increase and destructiveness than is usual in their native environment.

3. If the major factors favouring control of an insect are to be utilized it is necessary to make a careful study of the fluctuations of the pest, and the damage done in its native home, preferably before, rather than after, it becomes located in a new country.

4. Until such work has been thoroughly done so that the prime factors which bring about the natural control of the insect in its native home have been thoroughly determined, it is desirable to secure and colonize all neutral enemies that give promise of assisting in the problem of control.

5. While theoretical considerations may sometimes be of value, definite facts are needed as a basis for securing the greatest benefit by natural enemies.

THE ONION MAGGOT IN ALBERTA

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Previous to the season of 1922, the Onion Maggot, *Hylemyia antiqua* Meig., had been reported from only a few localities in Alberta, including Edmonton, Red Deer and Lacomb. The infestation in 1922 was general over the area south of Calgary and somewhat localized to the north. The sudden increase over such a large area caused considerable consternation among the gardeners, and the heavy infestation late in the season of 1922 indicated that more trouble could be expected in 1923. With these facts in mind, the study of the onion maggot was made the major garden-insect problem at the Lethbridge Entomological Laboratory during the season of 1923.

This season will long be remembered in Alberta not only as a wet year, but as the year which broke a five years' drought. The rainfall for May, June and July was well over the twenty-year average for these months, and some of the

storms were very severe, as wind and hail were combined with the rain. The excessive moisture made much of the observation work disagreeable, and oviposition very irregular. In at least one instance a hailstorm was undoubtedly responsible for the destruction of many of the flies.

Seasonal History

Flies and eggs were first observed in the field on May 15th. At this time seedling onions were about three inches high, but there were several volunteer onions scattered throughout the garden and ten of these were selected for oviposition records. Eggs were collected every day and counted until oviposition ceased. The daily average number of eggs per plant for the first generation was 24.6 with the height of oviposition centred on May 22nd and 23rd, no eggs of this generation being found after July 7th. Some of the first and last eggs of this generation were taken to the laboratory to get the limits of the generation.

The first larvæ hatched in the laboratory in three days, and the average larval period of 54 individuals which reached maturity was 16.35 days, with a range of from 12 to 22 days. The last larvæ to hatch from eggs of this generation had the same incubation period, but the larval period averaged 18 days with a range of from 15 to 26 days.

The first larva pupated on June 2nd and the earliest fly emerged on June 22nd, the average pupal period of the 54 flies being 20.37 days with a range of from 19 to 22 days. The last larvæ of this generation pupated on the first of August and emerged on the 20th of August, having the same average pupal period as the first.

The first eggs of the second generation were secured in the field on July 13th. Adult flies had been collected earlier than this and many had been reared, but no eggs were secured in the breeding cages and the weather was not suitable for extended searches in the field. From this date on, eggs were found until the 22nd of August with the height of oviposition on the 23rd of July. The daily average number of eggs per plant for this generation was 7.25 based on observations made on ten seedling plants.

None of the first eggs of the second generation collected in the field were fertile and in general the fertility of this generation was much lower than that of the first generation. The eggs of the first generation hatched over 80 per cent. healthy maggots, whereas barely 35 per cent. of the eggs of the second generation hatched at all. This may possibly be due to the destruction of numbers of the male flies by a severe hailstorm which occurred on July 1st, thus forcing the females to deposit infertile eggs. The above figures are based on records obtained by hatching eggs on wet blotting paper in petri dishes.

The first larvæ of the second generation were secured on July 26th from eggs collected three and four days previously, the larval period averaging 18.2 days. These larvæ pupated and the first flies emerged twenty days later, on the 31st of August.

There is considerable evidence of a third generation, but this point was not proved. The examination of onions harvested during the third week in September revealed the presence of numbers of nearly mature maggots, and several very small ones which could easily have come from eggs laid since the emergence of the third generation of flies. The examination of sets on the 18th of October revealed large numbers of pupæ and many half-grown larvæ. There is little doubt that the pupæ developed from the last larvæ of the second generation, but the larvæ can hardly be considered as belonging to that generation.

Several experiments were conducted to determine the method used by the maggots to get into the onion bulb. Seedling plants were used and newly-hatched maggots were placed within half an inch of the plant. Within two and a half hours all the maggots had burrowed into the soil but none were found within the bulb in less than twenty-two hours. The first maggots entered the bulb at a point about 6 mms. above the root attachment. The puncture was roughly oval in shape, about 1.5 mms. by .7 mms. After the opening had been used by the maggots and the tissues had shrunk, it materially increased in size.

Only one case was observed where the maggots entered by the leaves. The eggs had been laid well up on the plant at the junction of two leaves. When the larvæ hatched they penetrated the leaf and worked down the inside to the bulb. Twenty-four hours after penetrating the leaf the maggots were about 5 cms. below the point of entry and forty-eight hours after hatching they had reached the bulb.

Control Experiments

During the season of 1922 crude naphthalene was used on rows of onions after the damage had begun to appear. The results were rather surprising as the mixture of naphthalene and furnace ash had only been cultivated into the soil close to the plants and had killed over 80 per cent. of the maggots in four days. In 1923 it was decided to try some more experiments with this material, but unfortunately most of the onions were seeded before the work could be started. Mixtures containing crude naphthalene were worked into the soil in the preliminary cultivation, but it was only in the case of a small late-seeded plot, and the results were not satisfactory.

Other mixtures were tried after seeding, and when the damage first appeared. Some of these showed promise, and will be tried again next year, using larger plots. Each plot this season consisted of a single row of onions with check rows between the plots, and the damage was very nearly the same on all the rows with a few exceptions. It is very evident that to get any definite results from soil-fumigant work the plots must be larger, and separated by a greater distance than exists between rows as laid out in the ordinary garden.

The fact that the volunteer and early-sown onions were most heavily infested, and that eggs were found on them earlier than on any of the other plants, demonstrates the possible value of using onions in a trap-crop method of control. The later sown onions were almost free from eggs until about the end of the oviposition period of the first generation.

The females almost invariably select plants of heavy flaccid growth for oviposition. Volunteer onions or sets that are rather deep in the ground, so that the leaves branch before reaching the surface, will carry the bulk of infestation. Plants that have a pronounced neck with the leaves branching an inch or more above the surface of the soil are seldom chosen by the females for oviposition, and an examination of several plants showed this type of onion to be almost free from infestation.

There is a distinct relationship between rainfall and oviposition which requires further study. This season it was observed that oviposition dropped off materially before a storm and ceased until a day or so afterwards. It is hoped that another year will amplify our records on the life-history and natural control factors.

THE ONION MAGGOT IN THE OTTAWA DISTRICT

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Since the latter part of the 19th century the onion maggot has been regarded as an insect pest of primary importance in the Ottawa district. Early records indicate that in 1875 Mr. William Couper found the maggots to be destructive throughout Ontario, as well as in other parts of eastern Canada. Dr. James Fletcher, in his annual report for 1885, mentioned a case in which a Nepean farmer experienced a loss of 75 per cent. from the onion maggot. During more recent years losses from the onion maggot in fields near Ottawa have ranged from 1 per cent. to 95 per cent., but the average annual losses during 1922 and 1923 have been comparatively light, not exceeding 25 per cent.

At Ottawa the eggs of the onion maggot have been taken on garlic, leek and onion. During July and August, 1922 and 1923, it was observed that many more eggs were taken on leek than on onion under garden conditions; nevertheless, it should be stated that fewer larvæ feeding in garlic and leek material matured.

The attack of first generation larvæ to the plants in June is by far the most important form of injury. In the field during 1923, at Ottawa, such injury in the form of a distinct wilting readily seen by the naked eye first became apparent on June 12th in seedling plants, but was most evident between June 20th and June 30th. Larval attack in midsummer and autumn produced malformations of the bulbs and losses in weight. Secondary flies, such as *Fannia* sp., *Muscina stabulans* and *Muscina assimilis* were found in decaying onions associated with the larvæ of the onion maggot but in no case were these secondary flies of primary importance.

Life History

Two distinct generations of the onion maggot and a partial third generation were reared during 1923. Only 89 second generation puparia out of 766, or 13 per cent., produced adults during the latter part of the season; the greater number of the third generation larvæ resulting from these adults, failed to pupate by November 1st. The season of 1923 was cooler than normal and considerably more moist. In an open and warm year doubtless a higher percentage of the third generation adults would have developed.

In 1922 eggs were collected first on May 24th, and in 1923 on May 26th. The last eggs taken in the field during 1923 were collected on October 20th. Of 16,000 eggs collected in 1923 from a stated area, 2 per cent. were deposited in May; 48 per cent. in June; 11 per cent. in July; 25 per cent. in August; 12 per cent. in September, and 2 per cent. in October. The majority of these eggs were laid in the soil, but on fine days immediately after a heavy rain, fully 95 per cent. of the eggs were laid on the foliage of the plants, the size of the plants having no appreciable relation to the location of the eggs at any period during the season.

The egg stage averaged five days. The larval stage of first-generation individuals varied from eleven to twenty-two days, but the great majority of them took from eighteen to nineteen days to mature. The puparium stage varied from eleven to twenty days, the average being fifteen days.

The individual second-generation larval period varied from fourteen to forty-eight days, with an average between July 25th and August 15th of twenty-one days, and between August 15th and September 15th of twenty-eight days.

The average individual pupal period of the second generation was seventeen days, with a minimum of fourteen and a maximum of twenty-five days. Success attended our efforts to rear flies in continuous series from eggs collected in the spring, and from these it was observed that second-generation adults oviposited between July 20th and September 20th from the first female emergence on July 6th, while the third generation adults deposited eggs between September 10th and October 17th.

First-generation eggs were laid between May 26th and June 30th with first-generation larvæ present in the field between May 30th and July 15th.

Many larvæ were observed emerging from the egg. Emergence occurred most frequently about 8.30 a.m., and took place through a narrow opening extending from near the anterior end to about one-third the length of the egg. The maggot when just hatched is glistening pearly white in colour and somewhat longer than the egg. When full-grown it attains a length of 10 mm. and retains the pearly colour without the lustre.

The pre-oviposition period of adults under observation was thirteen days in the third generation and fourteen days in the case of the second. Hibernation occurs in the puparium stage, as has been noted by other investigators.

Control

Staphylinid beetles were observed to be predaceous upon eggs and larvæ of the onion maggot in confinement and their close association with infested onions in the field leaves little doubt that they are also predaceous under natural conditions. Furthermore, certain individual parasites belonging to this important group of beetles were reared from first and second generation puparia. Unfortunately these internal parasitic Staphylinids have not as yet been definitely identified but from their appearance and habits it is probable they are the species known as *Baryodma ontarionis* Casey, which is an important parasite of the cabbage-root maggot and which has been noted by Gibson and Treherne (Bulletin No. 12 of the Dominion Entomological Branch). During 1923, only .4 per cent. of the onion maggot puparia under observation were found to be infested with this parasite, but in 1919 as high as 25 per cent. were parasitised. This beetle is apparently the most important parasitic natural control factor of the onion maggot in the Ottawa district, but seems very variable in its degree of prevalence.

Among the Ichneumonids, **Aphaereta muscæ* Ashm., was reared from first-generation puparia in 1923. The first adult parasites emerged on July 25th, five appearing from a single puparium. Small, irregular holes in the anterior end of the puparium, marked the place of exit. The Figitid, *Cothonaspis gillettei* Wash., was also reared from second-generation puparia in August and September, eight specimens (all males) emerging from two puparia. The percentage of parasitism of this latter species from material under observation was .83 per cent.

Mites were also taken on adults of the onion maggot, being attached to the abdomen and to the front legs. These were determined by Mr. H. E. Ewing, of the United States National Museum, as probably *Microtrombidium* sp.

Spiders are undoubtedly important enemies of the adult fly, some of the experimental work during the last year being affected through their depredations.

Remedial Measures

In the Ottawa district the sodium arsenite poison bait method of control has for several years been experimented with, but in some years this method of control

* Both parasites were kindly determined by Mr. H. L. Viereck.

has not been satisfactory. In 1923, for instance, in one field in which the poison bait was set out in pans ten feet apart, so as to give the method every possible chance of success, the plantation suffered a 12 per cent. loss which was second highest degree of infestation noted in the Ottawa district this year. In this connection it is well to emphasize the extreme difficulty in obtaining satisfactory check-fields. Sufficient attention has not, it is believed, been given to such factors as dates of planting, soil fertility, soil moisture, and the existing degree of infestation in relation to the results obtained from experimental work and life-history studies.

As eggs may be taken in the field on May 24th in a normal year, poison bait cans would necessarily need to be set out about May 15th in the Ottawa district, or conjointly with the dates of germination of the onion seeds and the pans would have to be kept filled until about June 30th, or after the termination of the first-generation egg deposition period. From our egg records there was no discontinuance of the egg deposition during June, hence at least eight refillings of the poison-bait cans would need to take place during a year of heavy infestation to obtain satisfactory results. Unfortunately, since the writer undertook these studies, he has not experienced a year of heavy attack during which close observations were kept, and has therefore not been able to demonstrate this method of control applied under conditions entirely in harmony with the life-history records.

As regards the trap crop or cull onion method of control developed as a result of studies made in British Columbia by Messrs. R. C. Treherne and M. H. Ruhmann, the light infestation records at Ottawa during the last few years have not enabled us to pronounce upon the value of this method which, however, undoubtedly shows much virtue as the following records show.

As a possible improvement in the trap-crop method of control, as described on page 33 of the Fifty-second Annual Report of the Entomological Society of Ontario for 1921, a number of cull onions were planted in soil in flat boxes, ten inches wide and of a convenient length, with sides six inches high and fitted with galvanized wire screen bottom. These flats were set thirty feet apart through two fields of seedling onions during the summer of 1923. The percentage of loss (estimated by comparing the number of original seedlings in the row with the number of infested plants from an actual count), at the close of the season in one field was 6.55 per cent., and in the other 1.08 per cent. Both fields were heavily infested during 1922, the former being more heavily infested than the latter. In three untreated fields during 1923 losses of 25 per cent., 12 per cent., and 6.8 per cent. were observed as bases of comparison. An average count of eggs taken from ten trap boxes equalled the number of eggs collected from 376 feet of seedling rows between May 26th and June 30th.

As previously mentioned, the loss in a certain baited field was 12 per cent. This may be regarded as a fair basis of comparison with the other fields mentioned. The other records obtained in baited fields were interfered with by secondary factors which made them unsafe to use in a comparison of this description, but in each case the degree of infestation was higher than in the fields where bait onions were used.

Evidence is now available from a long series of notes which we could present if time permitted, that in the use of trap onions we have a remedy which is apparently more satisfactory than poison bait. A combination of the two systems, using a poison bait with the cull onions in flats, may prove ultimately to be the solution of the problem on onion-maggot control.

ONION MAGGOT STUDIES IN THE DISTRICT OF MONTREAL, QUEBEC, 1923

T. Armstrong, Entomological Branch, Dominion Department of Agriculture

During recent years the market gardeners on the Island of Montreal have suffered heavy losses in their onion crops due to the ravages of the onion maggot. This year (1923) an effort has been made to study the life history and habits of the insect and to determine an effective method of control.

Dr. J. M. Swaine,[1] writing in the Second Annual Report of the Quebec Society for the Protection of Plants, states that at Macdonald College, maggots appeared last season (1909) for the first time and a number of plants were destroyed.

In the Montreal district serious losses were occasioned in 1920, and during the past three years the successful growing of onions has been menaced by this insect.

Mr. Arthur Gibson,[2] in 1916-17, made use of a poison-bait spray consisting of sodium arsenite, molasses, and boiling water, and apparently secured satisfactory results. These experiments were conducted near Rivermead, Quebec, and it was recommended that commercial growers test out the value of the mixture under their immediate local conditions.

In the United States, commencing with the year 1913, the use of sodium arsenite as a bait received considerable attention, which resulted after several years' experimentation, in the belief that the onion maggot could be successfully controlled by poisoned attractive baits.

In the spring of 1921, control work with sodium arsenite bait was carried on in the Montreal district by Prof. W. Lochhead and Mr. W. J. Tawse, of Macdonald College, in co-operation with the Dominion Entomological Branch. A number of fields were treated, making use of the two methods of application which were being advised at that time, the use of bait pans, and the diagonal sprinkling method. Fair control was secured according to the evidence produced by Messrs. Lochhead and Tawse, more especially with the use of the bait pans. The sprinkling system proved to be unsatisfactory.

Life History and Habits

In 1923, at Montreal, the first onion maggot fly was noticed on the wing on May 20, and ten days later, May 30, the first eggs were taken on a group of volunteer onions. Flies continued to emerge throughout the month of June from overwintering puparia. The maximum emergence occurred from June 10th to 13th, at which time from twenty to forty flies were seen to a pan and the greatest numbers were taken sweeping.

Eggs collected on May 30th hatched on June 5th, a period of six days. These maggots reared in vials in the hollow of onion leaves commenced pupation fourteen days later, with the majority going into the resting stage after sixteen days. These puparia gave rise to second-generation adults between July 4th and 10th, the pupal stage lasting from fifteen to eighteen days. Oviposition of the first generation was definitely in progress between May 30th and July 4th, but continued in all probability at least until July 20th. Second-generation

[1] 1909: Swaine, J. M.: Second Annual Report of the Quebec Society for the Protection of Plants. P. 53.

[2] 1917: Gibson, Arthur: Annual Report of the Entomological Society of Ontario. Pp. 30-33.

adults commenced egg-laying on July 19th, and continued until September 8th, giving rise in turn to maggots and puparia. Adults of the third generation first appeared in the vials on August 21st and continued to emerge until October 3rd.

The average larval life of the first generation, estimated from twelve separate series of egg collections, was determined as being thirteen days; the average pupal life being estimated as 15.77 days.

The larval and pupal life of the second generation was increased somewhat. For the larval period the average was 16.4 days, and for the pupal stage 19.8 days, in cases where flies did emerge.

From material reared in series from July until October, 81.4 per cent. of the second-generation puparia did not produce adults during 1923 but hibernated.

From egg counts made at regular three to four-day intervals throughout the season it was determined that the greatest number of eggs were laid during June and August. In May 2.3 per cent. of the total number of eggs were laid; in June, 36.1 per cent.; in July, 8.9 per cent.; in August, 39.6 per cent.; and in September, 13.1 per cent.

In short, first-generation eggs, larvæ and puparia were present in the field from May 30th until August 4th. Second-generation eggs, larvæ and puparia were present from July 23rd until October 4th, 81.4 per cent. of these puparia overwintering.

Attempts made to breed second-generation adults in a large field cage (6 ft. x 6 ft. x 3 ft.) proved unsuccessful. However, third-generation flies placed in this cage on August 24th, 27th and 29th, respectively, bred and laid eighteen eggs on September 17th, and forty-two eggs were collected from the onions in the cage on September 24th.

Some maggots were reared successfully on onion agar, more especially on agar to which a little hydrochloric acid had been added. Out of twenty maggots fed on this agar three went into pupation and one fly emerged.

As regards the oviposition habits of the flies it was observed that during the spring and summer, until the plants all attained a size of approximately six to eight inches, practically all of the eggs laid were deposited in the soil within one or two inches of the plant. Towards the end of August and during September eggs were commonly laid on the leaves, as many as eight to fifteen eggs being taken at one time on a single plant. It was observed during midsummer that those onions injured or attacked by first-generation larvæ were frequently chosen by second-generation adults for oviposition. Plants affected by onion smut also proved attractive for the flies in August.

These selective habits are doubtless of great importance in view of the possible use that may be made of volunteer onion growth as a means of control during the spring months.

Remedial Measures

In applying the sodium arsenite poison bait according to the formula laid down in Pamphlet 32 of the Dominion Entomological Branch, two methods of application are suggested, viz.: the sprinkling of the bait across the field in large coarse drops, or the setting out of suitable containers at regular intervals throughout the field filled with the liquid.

Prof. Lochhead and Mr. W. J. Tawse,[1] in conducting experiments in the Montreal section in 1921, using these two methods, found that the sprinkling of the bait was not nearly so successful as where bait pans were used alone. In

[1]1921: Lochhead, W., and Tawse, W. J.: Fourteenth Annual Report of the Quebec Society for the Protection of Plants. Pp. 43-48.

view of this, in 1923 our experiments in control only considered the value of these pans, and in order to give the method every opportunity to prove successful they were kept refilled for the entire period from May 22nd until July 10th. The commercial aspect bearing upon the point as to how many times refillings were necessary was not specially considered. Five acres were treated by the pan method, using about thirty pans to the acre. At the close of the season an 8 per cent. loss was observed in the plantation, and a total of 405 eggs and eggshells were actually taken on ten feet of row in twenty-three separate observations between June 11th and September 5th.

In a two-acre check or untreated field adjoining the above the net loss was 3.3 per cent., with a very much lower egg count throughout the season. To account for this negative result it would be only fair to state that while the conditions were as nearly comparable as it was possible to make them, the untreated field had not been manured so heavily and this fact may partly account for the lower degree of infestation if the attractiveness of the poison bait pans in the adjoining field is discounted.

As mentioned in Pamphlet 32 of the Dominion Entomological Branch, Mr. W. J. Tawse made a suggestion that possibly encircling the bait pans with a number of growing cull onions would prove a more satisfactory and reliable remedy than where pans are used alone. This recommendation was based very largely on the suggestion made by Messrs. R. C. Treherne and M. H. Ruhmann,[1] where trap onions are used alone in British Columbia, coupled with his belief in the value of sodium arsenite baits.

In order to test the value of this combination method, six acres were set out with pans and traps in adjoining fields to the plantation referred to above. At the close of the season the loss due to onion maggot attack was noted, as 5.4 per cent. with 408 eggs and eggshells being taken in ten feet of row in twenty-three separate observations between June 11th and September 4th as before. Occasional observations during the season indicated that eggs were being laid in fair numbers around the trap onions, but no definite count of eggs or record was kept.

However, from ten trap onions especially set for oviposition counts, a total of 2,450 eggs were taken between May 30th and September 19th, 1,038 of these eggs being first generation, 1,163 second generation, and the remainder, in all probability, third generation. The degree of infestation this year has unquestionably been light which accounts for the slight damage that was caused and for the low oviposition counts. The comparative value of the various control measures is obtainable, however, from these records.

In addition to the above, two acres of onion field were set out with the special British Columbia poison-bait can, which only differs from the ordinary open pie dish by the addition of a water reservoir and felt mat. No records of oviposition or loss by onion-maggot attack were kept in this field, as the main object was to test the value of this special pan over the open dish from a mechanical point of view. As a result of this experiment it was shown that the method did not prove any more desirable than the open dish with excelsior or straw floats, and the trouble of refilling in a field where water was not easily obtainable detracted very greatly from their use.

As a result of this year's experiments it was unfortunate, from our point of view, that a greater degree of infestation was not registered. In a broad, general, commercial scale all fields used this year yielded equal returns and suffered a

[1] 1921: Treherne, R. C., and Ruhmann, M. H.: Fifty-second Annual Report of the Entomological Society of Ontario. Pp. 29-33.

like loss, only one untreated field at Cote des Neiges, showing a loss of 9.9 per cent., the highest observed in the vicinity. Sufficient has been seen, however, to indicate that the use of cull or trap onions does offer a suitable base for experimental studies of the future, and that in combination with a poison bait liquid will probably prove the most satisfactory measures for control of the onion maggot.

NOTES ON THE LIFE HISTORY OF THE CLOVER LEAF WEEVIL (*Hypera punctata*)

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This paper is a very brief resumé of the more important facts concerning the life history of the clover leaf weevil as it occurs at Strathroy, Ontario. Clover insects do not appear to have caused much damage in recent years in this locality. This may be due to two causes; either the insects have not been sufficiently abundant, or more likely, they have received little or no attention.

The clover-leaf weevil would appear to be the major clover pest which has come under our observation in recent years. Our first acquaintance with this insect was in the spring of 1917, when several hundreds of acres of clover and timothy meadows were severely injured in Delaware township. The depredations of the larvæ, however, did not last long, for a fungous disease broke out which wiped out the entire infestation. Since that time they have again become abundant. Among food plants, red and sweet clover appear to be favourite, with some preference being shown for red clover.

The beetles do not become sexually active until about the third week of August. Eggs are deposited quite regularly until the middle of November, the bulk of eggs being laid in September and October. Few, if any, beetles hibernate. From the time the beetles emerge from the cocoon until sexual activity commences, the beetles lead a very inactive existence, and feed sparingly.

In our studies of the eggs over thirty pairs of beetles were used. The egg capacity of the female varied from 34 eggs to 667 eggs. The female with a record of 667 eggs oviposited over a period of 76 days with 46 days of oviposition. Other females laid 133, 240, 278, 324, 360 and 378 eggs, respectively. With 4,500 eggs under close study it was found that 55 per cent. were deposited within the petiole of the clover plant, 27 per cent. in masses on the outside of the main stem of the plant, and the balance on the soil surface or on the sides of the cage. Under field conditions the percentage of eggs laid in the stems would have been high, but in our experimental work young plants were used having no stems. In a few cases wheat or oat stubble was introduced. Stubble was in all cases preferred for oviposition. Eggs laid in stubble had the highest percentage hatch, due perhaps to the shrinkage of the green clover petioles removed with the eggs.

The Egg. The egg period varies considerably. Those deposited during the week of August 25th averaged 18.5 days, with the period lengthening out until the week of September 22nd when the average was 31.3 days. The shortest period obtained was 14 days, and the longest, aside from the over-wintering eggs, was 42 days. A mass deposited November 10th hatched April 23rd.

The freshly-laid egg is pale yellow. The shell is semi-transparent, and shows the yolk indistinctly, the ends appearing watery and lighter in colour. A viscid liquid is voided with the egg, by the female ovipositing. This liquid dries

quickly when exposed to the air, adding gloss to the shell. When the egg is laid on the outside of the plant the shade intensifies to a clear light yellow in about two hours, showing evenly over the whole egg, continuing so for from one to three days when a faint tinge of green appears. This gradually deepens until from the second to the sixth day the ends darken slightly giving a general appearance of pale olive green. Usually the next day (although sometimes simultaneously) the shell begins to show slight sculpturing, becoming complete in a day or two. All gloss then leaves the egg, and it becomes quite dull, and slightly darker. The pattern of the sculpturing is more evident on eggs laid on the outside of the plant, and is of a very even hexagonal form. No particular change is seen after this until the head of the embryo begins to show. Usually this takes place in from three to five days after sculpturing, depending very much on the weather. Even in early fall it may last fourteen days. At first the head shows faintly as a dark mark, then soon darkening to a plainly visible circular black spot. In most cases this is about one-third distant from either end, but may be anywhere along the egg, as the larva moves about before hatching. With eggs laid inside the petiole, coloration is less marked. Just before hatching, the egg is a very pale green colour, the head of the larva within showing plainer than in eggs exposed to the air. The egg enlarges considerably before hatching, becoming slightly distorted in outline.

The Larva. The newly-hatched larvæ remain for a short time near the egg mass, but soon ascend the stem, to begin feeding on the leaflets. Being legless, a large number fall to the ground. In the insectary most of these perished unless they were assisted back on to the leaf. In the field this fact doubtless results in considerable larval mortality, especially if hatching occurs during a rain or heavy wind. The first instar larvæ do not retire to the base of the plant in the daytime, but remain on the underside of the leaf near where they were feeding, curled tightly, the last segment just covering the head. An epidermal hair or two of the leaf is usually embraced to help anchor the larva. In the field many of the young larvæ feed within the unopened leaflets at the base of the plants, thus obtaining ample cover during the day without leaving their feeding-ground. The propensity of the young larvæ to remain in the one location until some growth is made can be observed very noticeably under insectary conditions. With two hundred specimens observed in vials not a single one voluntarily left a dried, withered leaf for a fresh one without being transferred to it bodily. Before the first moult the feeding is confined to the centre of the leaves, the injury showing as small round holes. After the larva has attained the third and fourth instar it feeds from the leaf margin as well. They feed at night only, dropping to the ground to spend the day curled up under the refuse at the base of the plant.

With careful searching some larvæ may be found in the field any time from the second week of September until the third week of June of the following year. They are not difficult to identify, and are not likely to be confused with other insects in the clover field. The green larva with its pale dorsal stripe and its habit of curling up when not feeding is easily distinguished. Although the colour is usually green it may be cream, bluish, or with a tinge of pink. The percentage of cream-coloured larvæ was 2.6 per cent., and they produced normal-coloured adults.

Three moults were observed, the length of instars being very variable on account of the intermittent feeding of the larvæ, due largely to adverse weather conditions. The first instar (fall observation) averaged 17 days, the second

instar (fall observation) 21 days, the third (spring observation) 13.11 days, and the fourth (spring observation) 17.01 days. A very great increase in food consumption is noticed after the second moult. They winter in all four larval stages as well as in the egg stage.

The Pupa. The larvæ cease feeding a day or two before they commence spinning cocoons, which operation requires one or two days. The usual location for the cocoon is just below the surface of the soil, but it may be over an inch deep in the soil, where there is lack of moisture, or on the surface under debris. The cocoon is not woven from one continuous thread, the silk being cut off at each end, at a length of from three-eighths to five-eighths inches. A rest is always taken after the spinning of each thread (for about the same length of time as the work) and a new supply of silk material is taken before resuming spinning. Sometimes the supply appears to run low, when the larva kneads the underside of the last two body segments with its head, as if forcing the secretion to the opening. This substance is very adhesive, adhering to the sides of the pupal chamber and to the threads already spun very securely. Curiously enough it does not seem to adhere to the body of the larva, when too large a supply is taken. Slightly over six inches of silk is spun in one hour. The prepupal period lasts from three to eight days and the pupal from five to thirteen days.

The Adult. After the pupal skin is shed the adult remains within the cocoon for one to four days. With specimens emerging in vials not supplied with food, the cocoon is always eaten, but this is not the case in the field where there is an abundance of food, only sufficient being eaten from one end to permit the beetles to emerge. After emergence they feed regularly for two weeks, then become dormant until August. The feeding habits of the adults are somewhat different during oviposition, for then the petioles as well as the blades are eaten. There appears to be only one generation in Western Ontario, the beetles dying soon after oviposition is completed.

The spread to new fields occurs during the latter part of August. On a bright sunny day the beetles may be seen in flight and running rapidly from plant to plant over the bare spaces on the ground surface.

Although hundreds of larvæ have been reared and collected from the field we have never observed any natural parasite. In years of excessive abundance the outbreak seems to be controlled naturally by a fungous disease known as *Empusa sphaerosperma*.

WINDS AND GIPSY-MOTH SPREAD

E. P. Felt, Chief Entomologist, Conservation Commission,
Albany, N.Y.

It is well known that wind-spread is an important factor in the dissemination of the gipsy moth (*Porthetria dispar* Linn.). The earlier investigations in eastern Massachusetts, by agents of the United States Bureau of Entomology, have shown that the recently-hatched caterpillars may be carried considerable distances—as much as twenty or twenty-five miles over water.

The proposed barrier zone in which the gipsy moth should not be allowed to establish itself made it very desirable to study the winds of western Massachusetts and eastern New York during the period when conditions were favourable for wind-spread.

Five temporary weather stations equipped with self-recording instruments for registering wind direction and velocity and temperatures were established at approximately equal distances along the Mohawk Trail from North Petersburg, N.Y., to East Charlemont, Mass. They were located, in addition to the two above mentioned, one at a point about midway between Williamstown and North Adams, Mass., one on the east summit, Whitcomb Summit, elevation 2,200 feet, of Hoosac mountain, and the other in western Charlemont, just east of the grade up the mountain and about four miles east of Hoosac tunnel. The western two stations are in the Hoosick River valley, and the eastern two in the Deerfield River valley. The records of these stations were supplemented by hourly observations of wind direction and velocity and temperature at Sheffield, Mass., and Copake Falls, N.Y., the two being separated by a well-marked ridge of the lower Berkshires. Data were also obtained, through the co-operation of the various meteorologists, from those United States weather stations in New England and eastern New York state possessing information most likely to assist in solving the problem.

The following tabulations shows a very small eastward component at any of the stations in or near the Berkshires, either in western Massachusetts or eastern New York.

Summary of Percentages of Principal Wind Components, May 10th to June 8th, 1923

Locality	North	South	East	West
No. Petersburg, N.Y	37.8	19.9	5.5	56.1
No. Adams, Mass	48.5	13.9	12.1	55.5
Hoosac Mountain, Mass	31.3	7.1	11.5	69.5
Charlemont, Mass	57.6	12.6	6.9	51.7
Sheffield, Mass	60.8	25.5	7.9	27.1
Copake Falls, N.Y	40.0	24.9	10.9	40.6
Average percentage	46.6	17.3	9.1	50.0

On the other hand, there is perceptibly more east wind in the Connecticut valley, as shown by the following tabulation:

Locality	North	South	East	West
East Charlemont, Mass	42.4	17.4	17.1	51.8
Amherst, Mass	44.6	31.5	16.3	33.7
Hartford, Conn	24.1	44.9	16.6	37.9
New Haven, Conn	19.4	47.8	15.1	41.1
Average percentage	32.6	35.4	16.3	41.1

A still greater prevalence of east wind, and consequently westward drift for this period, is shown at the Concord, N.H., and Boston, Mass., stations, the east wind at the latter stations being especially marked.

Locality	North	South	East	West
Concord, N.H	36.2	18.4	18.2	46.6
Boston, Mass	15.0	18.8	26.7	52.2
Average percentage	25.6	18.6	22.4	49.4

The figures for 1923 show a distinctly smaller probability of the pest being swept westward from the New York state boundary line than is the case in the Connecticut valley and most evidently so in eastern Massachusetts. Furthermore, it has taken over twenty years for the gipsy moth to spread from the vicinity of Boston, Mass., to the New York state line, and if the wind is an important factor, as is doubtless the case, we must conclude that the westward spread into New York state will be still slower.

The records of the United States Weather Bureau for New England and eastern New York stations are the basis for the following:

The eastern component for Albany for the past nine years, May 16th to June 8th, has ranged from 1.4 to 22.8 per cent., the average being 11.9. Similar figures for Burlington, Vt., show a range from 2.1 to 12.5 per cent., and an average of 6.4 per cent. Records for a six-year period for Northfield, Vt., indicate a range of 5.4 to 11.2 per cent., with an average of 7.4 per cent.

It is evident from the above that east winds are much less prevalent in western Massachusetts and eastern New York than on the eastern coast of New England and consequently less likely to carry gipsy moth caterpillars westward.

In view of the recently discovered infestation in northwestern Vermont, our tabulation of the principal wind components from Burlington and Northfield, Vt., stations for the period when wind-spread is likely to occur is of special interest to Canadians and is reproduced below:

Summary of Percentages and Principal Wind Components
7 a.m. to 7 p.m., May 16th to June 8th.

	Burlington, Vt.				Northfield, Vt.			
	North	South	East	West	North	South	East	West
1915	34.1	28.2	8.3	29.4	....	....	....	....
1916	24.9	61.9	8.2	15.5	....	....	....	....
1917	36.01	52.11	5.06	14.65	....	....	....	....
1918	15.7	64.1	2.1	26.3	27.3	56.7	5.4	30.7
1919	29.7	57.5	12.5	11.0	43.9	45.4	5.8	17.0
1920	26.8	54.43	6.5	23.6	40.8	53.7	6.0	5.1
1921	36.2	43.9	4.5	26.6	45.8	36.3	11.2	21.6
1922	23.4	60.5	5.8	22.6	29.5	56.9	8.2	22.3
1923	39.7	40.5	4.7	29.5	48.6	36.4	8.0	23.7
Average percentage	29.61	51.46	6.4	22.13	39.3	47.5	7.4	19.9

The southern component is especially important to Canada. This averages for Burlington 51.46 per cent., the range being from 64.1 per cent. to 28.2 per cent. The average for Northfield is 47.5, the extremes being 56.7 per cent. and 36.3 per cent.

The weather records were supplemented by releasing from the weather stations named above and localities in Bradford, Vt., Deerfield, Easthampton, and Sheffield, Mass., East Granby, Conn., and Copake Falls, N.Y., nearly 7,000 hydrogen-inflated toy balloons for the purpose of obtaining records of actual drift. The balloons were liberated at hourly intervals from 7 a.m. to 6 p.m., eastern standard time, additional balloons being released on the quarter hours between 9 and 11 a.m. and 3 to 5 p.m., and on the half hours from 11 a.m. to 3 p.m., and at 5.30 p.m., except when temperatures were below 60°F., or during the prevalence of rain. Observers were also instructed to go on to a fifteen-

minute schedule during the prevalence of an east wind, so that no opportunity of securing records of western drift would be lost. Inflation was for a minimum buoyancy as far as possible. We desired records of the lower air currents. There was attached to each balloon a numbered tag requesting the finder to give his name, address, the date and place where found and he in turn would be informed as to the time and place of liberation. Records were kept of the locality, time and wind conditions when each balloon was released. The balloon work extended from May 11th to June 8th.

The following tabulation gives some general items of interest:

Table of Balloons Released and Tags Returned

Locality	Balloons released	Tags returned	Per cent. returned	Balloons drifting		5 miles or more
				Number	Mileage	Average mileage
No. Petersburg, N.Y.	794	34	4	33	1,368	41
No. Adams, Mass.	551	20	3	42	1,426	34
Hoosac Mountain, Mass.	575	22	4	21	1,393	66
W. Charlemont, Mass.	807	75	9	10	305	30
E. Charlemont. Mass.	648	33	5	27	653	24
Bradford, Vt.	298	8	3	5	165	33
Deerfield, Mass.	586	35	7	29	630	22
Easthampton, Mass.	495	45	9	39	861	22
East Granby, Conn.	597	50	8	43	1,290	30
Sheffield, Mass.	459	25	6	20	696	35
Copake Falls, N.Y.	537	31	6	19	660	35
Miscellaneous localities	611	44	7	28	1,347	48
Totals and averages	6,958	422	6	316	10,794	34

The percentage of returned tags ranges for the various stations from over three to nine, the average for all stations being over six. The records show that of 298 balloons where the data were sufficiently detailed, 74, or 25 per cent., continued to drift in the direction they started, the others diverging to various degrees, even to the extent of drifting finally in a directly opposite direction. One balloon, No. 3,611, released at Easthampton, Mass., at 10 a.m., May 23rd, dropped at 4.15 p.m. on the same day within fifteen feet of the point of release, evidently carried back by counter currents. Another remarkable record was that of balloon No. 3,468, released at Easthampton, Mass., at 5 p.m. on May 16th, and recovered by the observer at the next station north, Deerfield, some fifteen miles distant, the following morning.

There were considerable variations in the distances covered by the balloons. The longest known was from New Lebanon, Columbia county, New York, to five miles off Yarmouth Cape, Nova Scotia, about 400 miles. This was the second balloon released in the preliminary work. Seven balloons drifted from 110 to 145 miles, twenty-two from 85 to 100 miles, and eighteen from 60 to 75 miles, the greater proportion presumably dropping at shorter distances. The velocities for sixty-one balloons found the date of liberation average 17.9 miles per hour, the averages for the various stations ranging from 14 to 27 miles per hour. The records indicate that one balloon drifted 65 miles at the rate of 100 miles per hour, and another covered 65 miles in one hour.

The records of returned tags show a general distribution of the balloons in southern New England, most of them, as might be expected, being found within

thirty miles of the various points of liberation. The drift was largely southeasterly, widely scattering individuals landing here and there over the intervening territory to both eastern and southern New England coasts. Several were found on Long Island. There were 285 balloons which drifted a total of 9,419 miles, less than 2 per cent, being in a westerly direction. The distribution of the recovered tags is shown on a map of New England published in the Thirteenth Annual Report of the New York State Conservation Commission for 1923. See insert facing page 168.

The important point in this work is that practically all the drift was easterly, northerly or southerly, there being less than two per cent. in a westward direction. An examination of the data, see page 165 of above cited report, shows perceptibly more westward drift from the Connecticut valley stations than from any on either the eastern or western sides of the Berkshire Hills, and this in spite of the fact that a number of balloons released west of the range drifted over it. One was observed drifting over the summit of Mt. Everett, elevation 2,624 feet, in southwestern Massachusetts.

Both wind records and balloon data of 1923 indicate considerable less probability of young gipsy-moth caterpillars being carried westward by the prevailing winds than in any other direction, and present indications in this respect are therefore favourable to the maintenance of a barrier zone.

WILL THE GIPSY-MOTH CROSS THE INTERNATIONAL BOUNDARY ?

H. L. McIntyre, Supervisor, Gipsy-Moth Control, New York State Conservation Commission, Albany, N.Y.

It is possible that this has already happened, or will in the near future. If it has not, it surely will unless immediate action is taken to determine whether or not it is present, and necessary funds furnished for extermination, wherever it is located.

The traveller, regardless of his mission, if crossing the international boundary is subjected to certain international regulations. Will insects be privileged in this respect, especially so in the case of the gipsy moth, which has already located near the border?

International laws can be quite efficiently enforced in so far as the public is concerned. Insects seem to make a special effort to evade laws and regulations. An immediate exceptionally strenuous effort must be made if the gipsy moth is to be prevented from becoming firmly established in the Dominion of Canada.

There are at this time in New England many who have been continuously engaged in gipsy-moth work for twenty or more consecutive years. It is doubtful that one can be found who, twenty or in fact ten years ago, realized that we would be continuing the gipsy-moth fight on the northern border of the United States to-day.

As reference has been made to the period of years that gipsy-moth suppression work has been carried on in the New England states, it is only natural that many will consider—is this problem worth further consideration?

Probably a few figures on the cost of the gipsy-moth suppression campaign in New England will clearly indicate that the problem is not only worth consideration, but more serious consideration than it has ever received.

Figures, or even estimates, for the total cost of this campaign in New England are not available, or at least are unknown to me. I will, therefore, quote figures on the expenditures in part of Massachusetts, which is the state in which the pest was first located, and which has always been the leader in the suppression campaign.

Since 1905 there has been expended by the State Department charged with the work of moth suppression, other state departments, cities and towns, private individuals and corporations, about $15,000,000. Although now practically the entire state of Massachusetts is infested to a more or less degree, I think it is safe to say that 75 per cent. of the amount mentioned has been expended in about one-half the area of the state, or 16,520 square miles. These figures, in so far as corporation and individual are concerned, are partially estimated. They do not, however, include an unestimable amount, which certainly runs into the millions, for the loss due to retardation of the growth in the area where defoliation by the gipsy moth is frequent, or loss due to the cutting of unmatured growth, the latter being necessary in order to avoid a total loss by repeated defoliation of many valuable forest areas in the infested section of New England.

The area in which this amount has been expended, represents the greater part of the commercial and industrial section of the state, and as the agriculturist, for his own protection, must bear the greater part of the burden, it is rather difficult to determine exactly what percentage of the cost should be charged to each individual.

An extermination campaign against the gipsy moth had been carried on in Massachusetts a few years previous to 1900. So successful had they been in their efforts to exterminate the pest, that the State Legislature considered further funds for the continuance of the campaign inadvisable. The amount asked for that year by the State Board of Agriculture was $200,000. Had that been granted the millions expended since would, without question, not have been necessary. Neither would New York State and Canada be asked to join in the fight to establish a barrier zone to prevent this insect from becoming established within their borders.

Massachusetts has sincerely regretted the mistake that was made in 1900, which was proven an expensive one to that state, as well as the balance of New England. New York State has taken advantage of the experience of New England, we hope timely advantage, to prevent the further spread of this insect. We ask Canada to do likewise.

The most important part to New York State in its attempt to establish this barrier zone is the assistance we can secure from the United States and Canadian Governments, and the New England States adjacent to our border.

The United States Bureau of Entomology is now conducting an extensive gipsy moth suppression campaign in northern and western New England. They must be given immediate assistance. Their work is of mighty importance to the adjacent territory. Work in eastern New York and southern Canada near New England and New York border is equally important to them.

The prompt attention of New York State to the alarming condition that was approaching its borders, has already resulted in locating three small gipsy moth colonies. It is possible that the same, or even more serious conditions, exist in Canada to-day. So far, the colonies located in New York are at present easily exterminated, but if left for a few years unnoticed would mean that we had allowed to become established, without an effort to prevent it, a pest which would undoubtedly later necessitate an expenditure of millions of dollars.

It might be well to include here a paragraph of a paper prepared by the writer for presentation at a meeting of the United States Committee on Reforestation, recently held at Albany, N.Y.:

"I believe a Gipsy Moth barrier zone can be established, and I believe it will be established. The date we can say this has been accomplished, and the location where it is established, depends entirely upon the recognition that requests for present and future Gipsy Moth appropriations receive."

The above fully applies to the present Canadian situation. A serious gipsy-moth infestation has been located less than a mile from your southern border.

The present and future action that is taken regarding further funds for protective work against this pest will alone determine whether or not it will permanently cross the international boundary.

Very few can be found to-day who do not believe in insurance. Expenditures for protective work against an invasion of the gipsy moth should not be considered other than a most valuable insurance.

I regret that I am not familiar enough with Canadian resources to quote intelligently on the amount of money that could be wisely expended as insurance in protecting Canada from ravages of the gipsy moth such as have been experienced in New England.

It has been said by some, even by those entirely familiar with the gipsy-moth situation in New England, that there was a question whether the gipsy moth would ever become of economic importance in northern New England or Canada. An illustration of this is now evident at Alburgh, Vermont. You can there very clearly see as great a reproduction in an unmolested colony as ever was found in any section where gipsy-moth colonies have been located in the United States.

It has again been mentioned, or at least the fact has often been considered, why defoliation of forest areas is not more prevalent in northern New England during feeding period of the gipsy-moth larvæ. If more serious thought were given this matter, or if those interested in the problem care to look back a few years, they would readily find that no colony of gipsy moth, except in a residential section, ever became publicly noticeable, or caused extensive defoliation in less than ten years. Wooded areas, as a rule, are not found infested until the isolated growth in the surrounding open territory is found generally infested.

The suppression work that has been carried on in that territory has naturally prevented rapid increase of the infestation and likewise retarded the development to a degree that would yet cause easily noticeable defoliation in the vast wooded areas of that section. A timely suggestion here would probably not be misplaced.

Keep the gipsy moth out of Canada.

Even though climatic or other conditions would retard to some extent the increase of the insect, it surely will, if allowed to become firmly established in your territory, become of enormous economic importance.

New York State did not undertake the problem of establishing a gipsy-moth barrier zone without due consideration and expert advice, which resulted in a unanimous decision that such was the only practical method to adopt.

Canada was ably represented at the conference at which the decision mentioned was reached. The situation at that time did not appear especially alarming to Canada, and a direct appeal for immediate action by you was not made. The situation has changed, and is to-day as alarming to you as it is to New York.

The work that is being done by the United States Department of Agriculture adjacent to the New York border is to assist in establishing a barrier zone. The work they are doing south of the international boundary will assist you.

If colonies of the gipsy moth are allowed to become established in Canada on the New York border, the possibility of successfully ending the barrier zone work that has been attempted will be an effort in vain.

We, therefore, ask your co-operation.

In reply to questions, Mr. McIntyre stated that scouting, to be effective, should cover a territory of at least a 30-mile radius from the last infestation found. It was formerly supposed that wind-drift was limited to 12 miles, but this is now thought to be low and that the 30-mile distance is necessary in careful scouting. He estimated that scouting in Quebec area would cost at least $20 per lineal mile of road, in addition, of course, to the overhead. The border scouting along the New Hampshire line should embrace a strip 30 miles wide. He further stated that in scouting, with remarkably few exceptions, solid blocks of woods are not infested till after the isolated and scattered trees in the margin of the block are fairly generally infested.

The meeting then adjourned and the discussion was continued after lunch, as follows:

DR. SWAINE: The question of the distribution and spread of the gipsy moth is exceedingly interesting to us in Canada. We should do everything we can to prevent it entering Canada and becoming a nuisance to our neighbours. How would the United States view the failure of Canada in their work to prevent the gipsy moth becoming well established along our southern border? How would that affect work in New York State?

MR. MCINTYRE: I would say that if Canada did not undertake the proposition of keeping down the infestation adjacent to the New York border, our attempt to establish a barrier zone in New York will be useless. No doubt many consider that New York is a large state and a wealthy one. I doubt that there is a state that would finance an extermination campaign over an area as great as that of New York State. The gipsy-moth campaign will undoubtedly, however, be continued, but if our attempt to establish a barrier zone is not successful, the problem would be carried on as an individual one, the property-owners themselves financing whatever work was undertaken. The attempt to establish a barrier zone is the first attempt of controlling the gipsy moth in this manner.

In a paper which I read this morning, I mentioned the amount of money expended in the State of Massachusetts for gipsy-moth work in approximately one-half the area of the State. The money that has been spent by the Federal Government in New England has been principally to establish a quarantine line to protect as much as possible the remainder of the country by preventing the shipping of infested material from that area to outside uninfested areas. The amount of money that they have received for this work has not been sufficient to attempt to carry on an extermination campaign.

At the present time the area in which the barrier zone work is being conducted under the direction of the United States Department of Agriculture and the New York State Conservation Commission, comprises approximately a

fifty-mile strip from the Canadian border to Long Island Sound. If the work can be continued in that section and Canada sees fit to join in the proposition, I think a barrier zone can be established.

The present line, as mentioned, is surely the shortest line on which this problem can ever be attempted in the United States.

MR. MCLAINE: I should like to ask Dr. Burgess to give us some information as to the success of the extermination work in New Jersey; the total number of egg clusters found in the first year of the infestation and the number found each year since the extermination work was started.

MR. BURGESS: I do not recall the number of egg clusters reported the first year the gipsy moth was found in New Jersey. The information came early in July and it was necessary to have some data about the first of August as to how much money would be necessary to carry on the work. Very rough scouting work was done and it was found that the insect had spread over 100 square miles and the estimates for carrying on the work were based on 100 square miles—$100,000 from New Jersey; $100,000 from the Federal Government. After the money had become available in the fall, work was carried on and by the following spring it was determined that the infested area had been greatly underestimated. Four hundred square miles were found to be infested. The New Jersey funds were increased to $125,000 and the Federal funds increased also. We have been carrying work on in New Jersey since that time—400 square mile proposition on a 100 square mile financing, and the second year the area was practically the same as the first year. The area now so far as determined by last spring's work is approximately 200 square miles, a marked decrease.

MR. MCLAINE: What was the actual amount of funds expended to bring about this result?

MR. BURGESS: New Jersey—first year, $100,000; second year, $125,000; third year, $125,000. Federal Government—first year, $122,495; second year, $101,672; third year, $167,207. The work in New Jersey has been extremely encouraging and I think anyone who has visited the work is very much encouraged at the progress that has been made.

MR. KEENAN: What is the distance between the Alburg infestation and the one nearest to it?

MR. BURGESS: About thirty-five miles.

DR. SWAINE: I went over the New Jersey outbreak last spring with Dr. Headlee and it certainly is surprising how successful the work has been. Almost unbelievable that such excellent results could be obtained.

MR. KEENAN: When an infestation such as Alburg is discovered, do you adopt a policy of recording the wind direction from the viewpoint of larval spread?

MR. BURGESS: This matter will be studied, but, of course, it will be necessary to study the wind records from the nearest point where accurate records are kept. A great many of the local weather stations only take temperatures twice a day and the wind velocity is not recorded.

MR. FINNAMORE: What time of the year would it be advisable to scout?

MR. BURGESS: Scouting ought to be done immediately. Scouting is most effective after the leaves have fallen and from then until you get deep snow. When you get deep snow you are apt to overlook infestations below snow-line. The most effective time for scouting is right now.

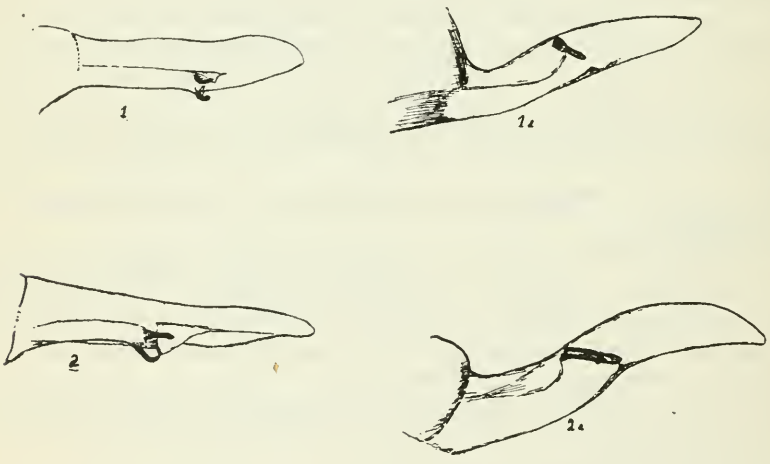
RHAGOLETIS POMONELLA AND TWO ALLIED SPECIES

(*Trypaneidæ, Diptera*)

C. Howard Curran, Ottawa

In volume fifty-one of the *Canadian Entomologist* (1919), Mr. W. Downes, of the Entomological Branch, gave a complete historical account of the occurrence of a species of Trypaneidæ, supposedly *Rhagoletis pomonella*, in British Columbia and mentioned also five specimens from California which had been described as *R. zephyria* by Snow. In view of the excellent published account by Mr. Downes, it is unnecessary to again cover this field fully, but it seems advisable to mention the main points and add such information as I have received from Mr. Treherne, who first discovered this insect at Penticton, B.C., in 1916.

In the first place both Dr. Doane and Dr. Aldrich have considered the two species found on the Pacific coast identical with *R. pomonella*, the true apple maggot. I have a type specimen of *R. zephyria* Snow before me, very kindly loaned for study by Prof. S. J. Hunter, of the University of Kansas. It is



evidently quite distinct from the other species as is hereinafter shown. The species found in British Columbia is readily separated from *pomonella* and in addition to slight external characters I find tangible differences in the genitalia of the male.

The outstanding fact concerning *R. symphoricarpi*, the species found in British Columbia, is its striking monophyllic habit. According to Downes and Treherne it never attacks apple and is found in the larval stage only in the fruit of the snowberry (*Symphoricarpus racemosus* Michx.). Extensive search was conducted to determine whether the insect attacked apples, haws or other fruits such as often serve as hosts for the apple maggot, but no trace of the maggots was found in anything but the snowberry.

Mr. Downes suggested that *P. symphoricarpi* represented a biological race, but it is quite evident that the species is distinct. Dr. Aldrich stated that he could see no tangible difference between the western and eastern specimens, but I believe they may readily be separated in almost all cases, and the males assuredly can be by dissection of the hypopygium. There are, in many species,

what may be considered biological races, but our knowledge of insects is so meagre in comparison to what is to be learned that we are not able, at the present time, to arrive at positive conclusions as to the status of certain forms. We know that many species are much more easily separated in the larval than imaginal stage and it therefore seems possible that many insects may be most readily determined by their host, and that careful study will reveal imaginal distinctions not previously suspected.

The three species of *Rhagoletis* which have been included under *pomonella* may be separated as follows:

R. pomonella. (Male) Genital claspers, as in Figs. 2 and 2*a*. The lobe of the clasper opposite the hooks is almost transverse towards the base of the clasper and the hooks are longer, the lower hook being much more evidently curved; the spot on the scutellum usually occupies the apical half and extends on the disc, well beyond the apical bristles; size usually over 4 mm. (Female) The white scutellar spot occupies two-thirds or more of the length of the scutellum and is very prominent to the naked eye. Size usually over 4.5 mm.

R. symphoricarpi. (Male) Genital claspers, as in Figs. 1 and 1*a*. The shapes of the parts as well as of the clasper itself are quite different, the hooks are shorter, the lobe tapers towards the base of the clasper, which is always less curved, wider and more compressed beyond the hooks; the spot on the scutellum is much smaller and usually does not extend very much laterad of the apical bristles; size seldom over 3.5 mm., usually slightly less. (Female) The white scutellar spot seldom occupies more than the apical half of the scutellum and is usually very distinctly narrower than in *pomonella*; length 3.5 to 5 mm., the average length slightly over 4 mm.

R. zephyria. (Female) The scutellar spot occupies less than the apical half of the scutellum and reaches well laterad of the apical bristles. The paler lateral margins of the front at the middle extend as far inside the frontal bristles as the distance from the base of the bristles to the orbit. In both the preceding species the pale stripe scarcely extends inside the base of the bristles and these are also slightly closer to the orbit.

I must confess that the differences enumerated as separating the first two species, except those of the hypopygium, appear slight. However, they are rather constant. *R. zephyria* is more readily distinguished in the female sex than are the other two.

It would be very interesting to know the host of *R. zephyria*, but we have no indication. A strange thing about *symphoricarpi* is that the first two specimens were taken by Mr. Treherne on the leaves of apple in an orchard.

INSECTS OF THE SEASON

W. A. Ross, Dominion Entomological Laboratory, Vineland Station, and L. Caesar, Provincial Entomologist, O.A.C., Guelph

Orchard Insects

Codling Moth (*Carpocapsa pomonella*). Side-worm injury was again quite severe in several sections of the Province; whereas in other parts such as in Norfolk County the injury was negligible, even in orchards which were only sprayed once for codling moth control (post-blossom application).

The Spring Canker Worm (*Paleacrita vernata*). Many neglected apple orchards in the Province were completely or almost completely defoliated by this species. Reports of severe damage were received from Welland, Wentworth, Peel, Northumberland and Durham Counties, and no doubt the insect occurred in injurious numbers in other parts of the Province. Elms as well as apple trees were stripped—one elm grove of about 2,000 trees near Brampton lost nearly every leaf. This particular grove, according to residents of the district, has been defoliated three years in succession, and it is feared that further injury will result in the death of a number of the trees.

The Yellow Tussock Caterpillar (*Halisidota tesselaris*). In late summer and fall this insect was present in immense numbers in southwestern Ontario. The caterpillars attacked various trees and shrubs, but the main injury was done to apples, whole orchards being defoliated in several instances, *e.g.*, at Dixie, North Toronto, Oshawa, Owen Sound and Elmira. The caterpillars began to appear in August, and in early September trees were stripped as a result of their feeding activities.

This is the first time in our experience that *Halisidota tesselaris* has been sufficiently abundant to cause much injury.

San Jose Scale (*Aspidiotus perniciosus*). This pest is still increasing in the warmer sections of the Province, and requires better attention in many orchards than it has been given in recent years. In parts of Elgin County, parasites appear to have had a marked effect in checking the San Jose scale.

The Apple Maggot (*Rhagoletis pomonella*). Reports of injury from this pest were received from several localities. We are glad to say that wherever (except under village or town conditions) a real effort has been made to combat the maggot, no difficulty has been experienced in bringing it under control.

Apple Aphids. The green apple aphis (*Aphis pomi*) appeared in outbreak form about midsummer in several localities in southwestern Ontario. On badly attacked trees the wood, leaves and fruit became literally covered with honey-dew, and with the black honey-dew fungus. During September the insect largely disappeared, and heavy rains cleaned the apples in most orchards. However, at a few places the aphis was abundant to the close of the season, and much of the fruit was badly smutted with the honey-dew fungus. It is of interest to note that in one orchard, consisting of alternate rows of McIntosh and Fameuse, the former was only slightly infested, whereas the latter was badly attacked.

The rosy apple aphis (*Anuraphis roseus*) was responsible for considerable injury in a few orchards in the Niagara district, but, generally speaking, this species was of little importance.

Cigar and Pistol Case Bearers (*Coleophora fletcherella* and *C. malivorella*). These insects were abundant in apple orchards east of Toronto, especially in the Bowmanville-Newcastle district, where the severe outbreak of case bearers occurred in 1921. Elsewhere they were of no importance.

The Apple Tent-Caterpillar (*Malacosoma americana*). In most parts of the Province this insect was scarce, but around Morrisburg numerous webs were found on trees along the roadside, indicating that possibly another outbreak will occur in eastern Ontario in a few years.

The Rose Leaf Hopper (*Empoa rosæ*). Some apple orchards, particularly in the Burlington district, were again heavily infested with this species. However, in most parts of the Province the leaf hopper was present in smaller numbers than it has been for some time past. In eastern Ontario and in the Niagara peninsula, leaf hoppers parasitized by a dryinid were very commonly observed.

Apple Plant Bugs. Apples seriously deformed by plant bugs were received from several new localities. Specimens from the Fonthill district were injured by *Lygidea mendax*, but in most cases it was impossible to determine what species were responsible for the injury.

Although the fruit in individual orchards is sometimes practically ruined by plant bugs, the total yearly injury from these insects is not large in Ontario.

Pear Psylla (*Psyllia pyricola*). Weather conditions must have been particularly favourable for the multiplication of the psylla this year, because, although the over-wintering flies were comparatively scarce in spring, the insect increased at a remarkable rate, and in summer and fall, pear orchards in the Niagara and Burlington districts, and as far east as Newcastle, were very heavily infested. At Burlington the pears on practically all Kieffer trees which did not receive a late application of nicotine, were covered with honey-dew fungus, and in harvesting the crop the pickers likewise became coated with the sticky, sooty material.

Plum Curculio (*Conotrachelus nenuphar*). For some reason unknown to us, this insect, although abundant as usual in spring, was very scarce this autumn. Unsprayed apples, which ordinarily would show considerable puncturing due to the insect's feeding activities, were more or less free from this injury.

Cherry Fruit Flies (*Rhagoletis cingulata* and *R. fausta*). At Niagara-on-the-Lake several orchards of Montmorency cherries were quite badly infested with fruit fly maggots, but elsewhere the insects were not common.

Plant Bugs injurious to Peaches (*Lygus caryæ, L. quercalbæ* and *L. omnivagus*). The hickory and oak plant bugs were much more injurious to peaches in the Niagara district than they were in 1922.

In two orchards, one with hickories and the other with oaks growing near by, a few damaged peaches were found as far as 200 yards from the host trees, but in both cases the plant bug injury was only severe on the fruit in the immediate vicinity of the oaks or hickories.

The Black Cherry Aphis (*Myzus cerasi*). This plant louse was very abundant on sweet cherry trees throughout the Niagara peninsula.

With reference to the control of this pest, experience has shown that, in addition to spraying with nicotine sulphate, it is advisable to remove and destroy aphid-infested water-sprouts in June.

The Green Peach Aphis (*Myzus persicæ*). In spring this species was sufficiently abundant in some peach orchards near Winona to alarm the growers. However, the outbreak was brought under control by natural agencies before any serious damage was done.

To anyone who has observed the myriads of returned migrants of *Myzus persicæ* which appear practically every fall in the Niagara peninsula, it is surprising that this louse is so seldom injurious to peach trees.

The European Red Mite (*Paratetranychus pilosus*). By the middle of July many plum orchards throughout the Niagara district were quite heavily infested with this mite, but the outbreak did not increase in severity to the degree we at first anticipated.

At Vineland the mite was easily controlled by spraying with wettable sulphur or lime sulphur.

Grape and Small Fruit Insects

The Rose Chafer (*Macrodactylus subspinosus*). This insect has seldom, if ever, been more prevalent than it was this year. Severe outbreaks occurred in most of the sandy sections of southwestern Ontario. Grapes, fruit trees, ornamentals, etc., were attacked and seriously injured. It is worth while recording that at Fonthill, according to a correspondent, a brood of ducklings died as a result of eating the beetles.

It is of interest to note that Mr. Hall's investigations at Fenwick have furnished us with satisfactory evidence that the chafer only breeds to a very slight extent in clover sod. Along with the other control measures, it would therefore seem to be advisable to recommend the substitution of clovers for grasses in chafer-infested districts.

It is highly probable that serious outbreaks of the rose chafer will occur again next year, judging by the immense numbers of grubs which were found in sandy soils this fall at Fenwick, Dixie and Simcoe. In this connection we might mention that the densest rose chafer grub population we have on record, namely, 1,052 larvæ per square yard, was found at Dixie in the Hydro-Electric right-of-way.

Grape Leaf Hoppers (*Erythroneura comes* and *E. tricincta*). Leaf hoppers were again present in large numbers in Niagara vineyards. On the whole, this year's outbreak was not so severe as that of 1922, but a larger area was affected, viz., from the Niagara River to Hamilton.

The Grape Berry Moth (*Polychrosis viteana*). During the past two years the grape crop in a large vineyard near St. Catharines has been seriously damaged by this pest. This season a very considerable percentage of the fruit was infested—in many of the rows practically 100 per cent. of the bunches.

The berry moth occurs in all parts of the Niagara peninsula, but it is very rarely sufficiently numerous to cause any appreciable loss. As exposed pupæ of *P. viteana* are said to succumb quite readily to low temperatures, the Ontario winter most probably accounts for our comparative immunity from injury.

The Grape Blossom Midge (*Contarinia johnsoni*). What we take to be this species destroyed a considerable percentage of the blossom buds in a vineyard near Fruitland. The affected buds, according to the grower, were swollen and watery in appearance, and when opened were found to contain maggots. The crop in this vineyard has been poor for several years back, and most of the bunches have been thin and ragged.

Colaspis flavida. This leaf beetle was commonly observed feeding on grape foliage in the Niagara district, but only in a few cases did it cause sufficient injury to attract the attention of the growers.

The Red Spider (*Tetranychus telarius*). Favoured by exceptionally dry weather, this pest appeared in outbreak form in the Niagara and several other districts of southwestern Ontario. During July the mite was present in extraordinary numbers on bush fruits and, as a result of its feeding activities, the

foliage in many black currant and in several raspberry plantations was largely destroyed. In one raspberry patch at Beamsville, all the leaves on the bearing canes were brown and dead before the berries were picked, and consequently the crop was almost a complete failure. In a few instances strawberries were also badly infested with the mite.

Blackberry Leaf Miner (*Metallus bethunei*). A few blackberry plantations near Vineland were fairly heavily infested with this species but, generally speaking, the miner was less abundant in the Niagara and Burlington districts than it has been for several years.

Striped Tree Cricket (*Œcanthus nigricornis*). Although complaints of tree-cricket injury to raspberry were received from all parts of the province, it is doubtful if this insect was more troublesome than usual. So-called winter-killing of the canes was remarkably prevalent, and many persons no doubt erroneously attributed this injury to the tree cricket.

The Raspberry Saw-Fly (*Monophadnoides rubi*). This pest was again somewhat injurious in several localities. At Vineland the emergence period of 698 adults extended from May 28th to June 22nd, the last flies appearing approximately four weeks before Cuthbert berries ripened.

The Strawberry Root Weevil (*Otiorhynchus ovatus*). On three fruit farms near Dixie portions of strawberry fields were heavily infested with this insect. On account of the prevalence of winter-killing, it was impossible to gauge the extent of the damage caused by the root weevil. This is the first time we have seen *O. ovatus* present in injurious numbers, and it is worthy of note that the farms on which it occurred are models for cleanliness—well cultivated and remarkably free from weeds. On July 4th approximately 75 per cent. of the insects had reached the adult stage but were still in the ground and were still pale brown in colour. Almost all the others were in the pupal stage, hence it would appear that the new generation is a cleancut and not a straggling one.

The Strawberry Leaf Beetle (*Paria canella*). For several years the adults of this species have done considerable damage to the foliage of strawberries in southwestern Ontario. This season in most places the injury was not so great as it was last year, but there were a few striking exceptions, notably at Georgetown, Campbellville and Simcoe. At the last place raspberries as well as strawberries were very severely injured on some farms, one plot of raspberries having practically every leaf destroyed. In this case the plantation was weedy and neglected.

The Strawberry Weevil (*Anthonomus signatus*). This pest was troublesome in a few Niagara strawberry fields.

Truck Crop Insects

The Onion Thrips (*Thrips tabaci*). Dry weather conditions were favourable for the multiplication of this insect, and it caused much loss in the onion marsh at Point Pelee and in other parts of the province.

Striped Cucumber Beetle (*Diabrotica vittata*). Cucumber beetles were very abundant in the Brighton district this fall, and caused some loss by eating out holes in pumpkins. In some instances 40 per cent. to 50 per cent. of the pumpkins were badly injured. One field which should have produced fifty tons of pumpkins, yielded only ten tons fit for canning. In most sections, however, the beetle was quite scarce.

The Squash Bug (*Anasa tristis*). This bug is usually only destructive in small gardens, but this season it was decidedly troublesome in commercial fields at Vineland. Cucumbers as well as squash and pumpkins were injured.

The Bumble Flower Beetle (*Euphoria inda*). The flower beetle was somewhat common again on ripe fruit, and to a greater extent on corn, especially sweet varieties.

The Zebra Caterpillar (*Mamestra picta*). This insect occurred in sufficiently large numbers on turnips and other plants to be conspicuous. At Aylmer it was responsible for considerable damage to gladioli.

The European Corn Borer (*Pyrausta nubilalis*). Discussed elsewhere in this report.

Miscellaneous Insects

Grasshoppers. In most parts of the province grasshoppers were of very little importance. At Sudbury, however, the roadside grasshopper (*Camnula pellucida*) appeared in such large numbers that the crops would have been ruined if timely applications of poisoned bait had not been made under the supervision of Mr. Robicheau, the Agricultural Representative. The poisoned mixture which was applied was prepared according to the formula given in last year's report, and some three and a half tons of white arsenic were used in making it.

White Grubs. White grubs were destructive in the vicinity of Fonthill. At the Fonthill nurseries, nursery stock, particularly apples and cherries, was severely injured. According to the man in charge, the apples and cherries were planted on clover sod.

The Blackwalnut Caterpillar (*Datana integerrima*). Over most of southwestern Ontario, black walnuts and butternuts were wholly or partially defoliated by this caterpillar. In some cases it is claimed that walnut trees which have been defoliated by the insect several years in succession are dying.

Spiny Oak Caterpillar (*Anisota senatoria*). In southwestern Ontario, from St. Thomas to near Brantford, many oak trees were completely or partially defoliated by this species.

Lilac Leaf Miner. Lilac leaves severely mined by some insect were received from several places in Toronto, and also from Newmarket and Guelph. The complaint was made that if this insect increased further it would make the lilacs so unsightly that they would be better removed. The dates on which the leaves were sent in were June 16th, 28th, July 31st and August 10th. The larva was lepidopterous and it is possible that it was the same one as troubled lilacs in England, namely, *Gracilaria syringella*.

Columbine Borer (*Papaipema purpurifascia*). In the latter part of July complaints were sent in from various sources stating that a large borer, working in the base of the plants, was destroying the columbines. On examination the insect proved to be the above species. It is only rarely that outbreaks of this insect are found in Ontario. Mr. Arthur Gibson reported it as being troublesome in 1893 and in 1904.

Iris Borer (*Macronoctua onusta*). Specimens of iris infested by what we believed to be this insect were received from Windsor and Sombra on July 7th and September 5th, respectively.

Silver Fish (*Lepisma domestica* and *L. saccharina*). In bakeshops the former of these two insects is very common; in fact, it is claimed by some bakers that practically every bakeshop is more or less infested. The other species is found here and there in private homes, but is not yet very common.

Horn Fly (*Hæmatobia irritans*). In Middlesex and Elgin, horn flies seemed to be exceptionally abundant this summer.

Heel Fly (*Hypoderma bovis*). More trouble was reported from cattle gadding as a result of the attacks of this warble fly this year than last.

A STUDY OF THE PUPAL CASE OF PRIONOXYSTUS MACMURTREI.

C. B. Hutchings, Entomological Branch, Department of Agriculture, Ottawa.

Prionoxystus macmurtrei Guer-Men., commonly known as the Lesser Carpenter Worm, is a serious enemy of the red oak in parts of Eastern Canada. The larva makes large winding tunnels in the wood and requires three seasons to mature.

Pupation takes place, usually, in the fall of the year within a silk-lined cell at the further end of the tunnel. The pupa is dark, mahogany-coloured and shining. The average female case is 45.5 mm. long and 10.8 mm. wide; the male being 24.5 mm. long and 6.0 mm. wide.

About the last few days in May or early in June, the pupa leaves its chamber and begins to move forward on its back into the tunnel. By a number of contractions and expansions of the abdomen, it makes its way along the passage to the mouth of the burrow, where it projects itself sufficiently to the exterior to expose the head, thorax and one or two segments of the abdomen. The remainder of the case rests within the tunnel walls, anchored there securely by means of the numerous spine-like processes which appear on the abdomen. A few violent pulsations and the head shell splits open, allowing the moth to gain its freedom.

The following is a study of the principal features of the external morphology of the case.

The Head

Vertex. The vertex is represented by a narrow chitinous band which is not clearly visible before dehiscence.

Front. Dorsally, the front bears two conspicuous setæ which are set in slight depressions near the epicranial suture; ventrally, four indistinct punctures arranged in an irregular row.

Genæ. The genæ are probably represented only by a slight rugosity near the fronto-clypeal suture.

Clypeus. In most specimens the suture separating the frons from the clypeus is not clearly marked. The lateral margins of the clypeus are strongly curved outwardly. The clypeus is truncate anteriorly and bears two setæ.

Labrum. The labrum is small, not so strongly chitinized as the frons, and slightly bilobed.

Mandibles. The mandibles are situated laterad of the clypeus and labrum; they are of a dark brown colour, present a rough surface, and are distinctly elevated.

Antennæ. The antennæ are pectinate and reach to the tip of the tibia of the second paid of legs.

Labium. The labium approaches a rectangle in shape. The palps are triangular and very distinct.

Maxillæ. The maxillæ are subtriangular and the tips meet about on the same level as those of the labial palps. The lateral extensions are folded and are blunt at the apex.

The Thorax

Prothorax. The prothorax is short, has a distinct pronotum which is quadrangular in shape and is bisected by a longitudinal ridge. The patagia are subtriangular.

Prothoracic Legs. The coxæ are exposed. They are located caudad to the maxillæ and are contiguous to same. The articulation between the tibiæ and tarsi is indistinct.

Mesothorax. The mesothorax is four times as long as the pronotum. The caudal margin of the mesothoracic spiracle appears as a rugosity situated under the posterior edge of the patagia.

Mesothoracic Legs. The coxæ are caudad to those of the prothoracic legs; the femora are not exposed, the joint between the tibiæ and tarsi is located near the tip of the prothoracic legs. The tarsi do not quite reach the apex of theforewings, which extend to and cover the anterior part of the third abdominal segment.

Metathorax. The length of the metathorax is about that of the pronotum. There is a longitudinal ridge on the meson. The greater part of the metathoracic legs is not exposed except a small portion of the coxæ appearing near the tips of the prothoracic legs and a few of the tarsal joints projecting beyond the wing covers.

Only a small part of the hind wings is visible on the dorsum; ventrally, they are covered by forewings.

Abdomen

The abdomen is slightly curved toward the posterior end. The curvature is determined by the fixed segments, these beginning at segment 7 in the female and 8 in the male.

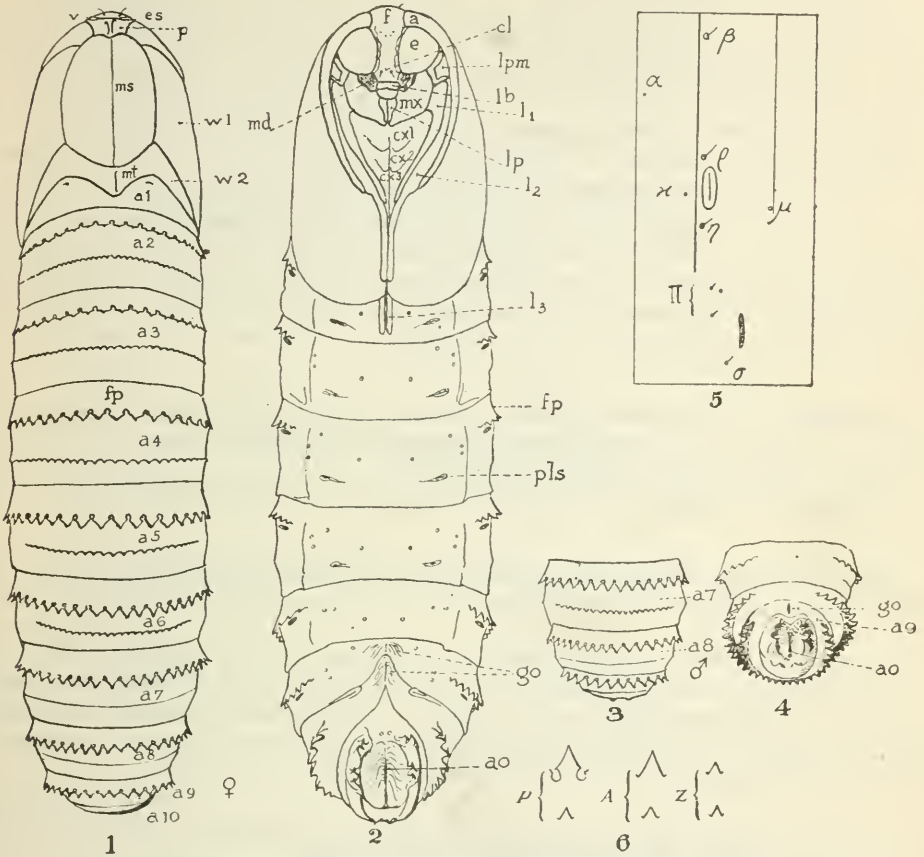
The segments support an armature of large and small processes which assist the pupa to reach the exterior. They are divided into three areas, as follows:

1. The first, or anterior, area is a flanged plate thickly chitinized, and has a row of prominent flattened spear-shaped spines across its posterior border. Under the high power of the microscope, small fine depressions can be seen on its surface.

2. The second, or median, area is of a thinner chitin. It has a row of fine toothed spines on its posterior border. The surface markings are somewhat elongated and suggest a fibrous structure.

3. The third, or posterior, area is thinly chitinized and covered with a fine reticulation which may provide for any expansion or contraction of the pupal case.

Spiracles. The spiracles are large, elevated and quite prominent in both sexes; those of segment 8 being atrophied. They are tureen-shaped with the outer edges smooth and rounded, the interior being lined with fine bristles.



Explanation of Plate

Fig. 1: Dorsal view of female pupal case.
cs—epicranial suture.
v—vertex.
p—prothorax.
ms—mesothorax.
mt—metathorax.
w1—Mesothoracic wing.
w2—metathoracic wing.
a1-a10—abdominal segments, 1-10.
fp—flanged plate.

Fig. 2: Ventral view of same:
f—front.
a—antennæ.
e—eyes.
cl—clypeus.
lpm—lateral projections of maxillæ.
md—mandibles.
mx—maxillae.
lb—labrum.
l1—prothoracic leg.
l2—mesothoracic leg.
l3—metathoracic leg.
cx1—coxa prothoracic leg.
cx2—coxa mesothoracic leg.
cx3—coxa metathoracic leg.
fp—flanged plate.
pls—proleg scar.
go—genital openings.
ao—anal opening.

Fig. 3: Part dorsal view of male pupal case:
a7—abdominal segment.
a8—abdominal segment.

Fig. 4: Ventral view of same:
go—genital opening.
ao—anal opening.
ag—abdominal segment.

Fig. 5: Arrangement of setæ on abdominal segments:

Fig. 6: Type of dorsal spines in cossid genera.
P—Prionoxystus.
A—Acossus.
Z—Zeuzera.

Spines. The chitinous dentations or spines are arranged transversely on the segments, pointing away from the head. The arrangement is slightly different in each sex.

Segment 1, which is reduced in size, shows only one row of very fine spines. On segments 2 to 9 are the larger, rounded, somewhat spear-shaped teeth, darkly tinted on the outer margin, each tooth being clearly visible to the naked eye. There is also an additional row of much smaller, finer, spine-like processes arranged transversely caudad to the larger and which can be seen only with the aid of a hand lens. These appear on segments 2 to 6 in the female and on segments 2 to 7 in the male. Segment 10 has several coarse spines, irregular in size, arranged somewhat semi-circularly, the largest being situated ventrally.

In both sexes the large, coarse teeth are fairly regular in outline. The largest of these in each row are situated mid-dorsally and taper off gradually as they run out laterally, passing down some distance *beneath* the spiracular line and *in front* of the spiracle on all segments except the first three. In segment 1 the entire row is absent; in 2 they terminate just above the spiracle; and in 3 they run to the *top* of the spiracle.

Genitalia. The anterior genital opening of the female is situated on the posterior border of the 8th segment; the caudal opening appears on a heavily chitinized area of the 9th segment (see figure).

The genital opening of the male is associated with the 9th segment (see figure).

Anal Opening. The anal opening situated near the caudal margin of the 10th segment is slit-like and surrounded by prominent folds.

Abdominal Setæ. The abdominal setæ, Fig. 5, are inconspicuous and occupy positions slightly different from those of the larva. The following is a tentative homology based on the nomenclature of the larval setæ introduced by S. B. Fracker in "The Classification of Lepidopterous Larvæ" of Illinois Biological Monographs, Vol. II, No. 1, July, 1915.

α very small, close to the cephalic border of the flanged plate, about half way between the dorso-meson and the spiracle.

β under the anterior row of spines nearer the dorso-meson than α

ρ under the same row of spines close to and dorsad of the spiracle.

κ on the posterior border of the flanged plate directly cephalad of the spiracle.

η under the anterior row of spines close to and ventrad of the spiracle.

μ on the posterior border of the median area, caudad of the spiracle (very indistinct, and absent in many cases).

π Group—usually bisetose, cephalad and slightly laterad of the proleg scar.

σ is between the prolegs scars.

α, κ and μ are represented by punctures only; elliptical in outline. Certain depressions or scars, the nature of which could not be determined occur dorsad of the spiracle and might easily be mistaken for setal vestages. (See Fig. 5.)

GENERIC KEY TO THE PUPÆ OF COSSIDÆ OCCURRING IN NORTH AMERICA.

As will appear from the following key, the pupal cases of Prionoxystus are easily distinguishable from those of other cossid genera.

A. Abdominal spines irregular in shape and equal in size on both cephalic and caudal rows.—*Zeuzera*.
AA. Abdominal spines regular, larger in cephalic than in caudal row.

B. Cephalic spines pyramidal in outline.—*Acossus*.
BB. Cephalic spines flat; spear-shaped.—*Prionoxystus*.

The writer is indebted to Mr. J. J. de Gryse for criticisms and suggestions.

NOTES ON LICE WITH SPECIAL REFERENCE TO THE CHICKEN LOUSE (*Lipeurus heterographus*)

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Insects are usually regarded as ubiquitous parasites whose persecutions, while annoying and distracting, are of little moment from the standpoint of general health.

This viewpoint, *per se*, appears more or less correct, but when considered in relation to infectious diseases, as vectors or intermediate hosts, their presence portends an ominous state of affairs fraught with grave possibilities.

Lice appear to be the least harmful of the insects, yet experimental evidence incriminates several varieties in the transmission and propagation of specific maladies.

Thus it has been conclusively demonstrated that the causative organism (*Spirocheta recurrentis*) of relapsing fever is transmitted from man to man through the intervention of two species of human lice, *Pediculus capitus* and *Pediculus vestimenti*.

The findings of the Royal Commission appointed to investigate trench fever also incriminate the human head louse, *Pediculus capitus*, in the transmission of this malady, while the clothes louse, *Pediculus vestimenti*, is a known carrier of typhus fever.

In view of the foregoing it is reasonable to expect that future research will establish a connecting link between many of the infectious diseases of domesticated animals and the lice parasitic upon them.

Apart from their role in the transmission of infectious disease, what harmful influence do lice exert on the host, when viewed from a purely parasitic standpoint? It is generally agreed that a more or less intense pruritis or cutaneous rash is caused by the presence of lice upon the body, varying according to the number and variety as well as the age and condition of the infected animal. Their presence upon young animals is supposed to result in a stunted growth, while older animals harbouring them become emaciated and unthrifty. Whether they alone are capable of producing death by irritation without the intervention of some contagious disease is problematical.

Formerly it was thought that this loss of condition was due to the small traumata resulting from the activities of lice while feeding, or the minute injuries produced by the sharp claws with which the feet of all these parasites are furnished; but experimental work conducted by Moore, of the Division of Entomology, University of Minnesota, throws a new light upon the subject.

In a paper which appeared in the *Journal* of the American Medical Association, Vol. 2, 1918, he describes an interesting reaction to louse bites where symptoms similar to trench fever were observed. May I be permitted to quote the following from this very interesting communication?

"Whereas, Miss Wentz had started feeding with a small number of lice which gradually increased, I started feeding about 700 to 800 twice a day. Almost immediately a general tired feeling was noticed in the calf of the legs and along the shin bones, while on the soles of the feet and underneath the toes this tired feeling was so intense as often to prevent sleep until late in the night. An irritable and pessimistic state of mind developed. May 7th, an illness resulted with symptoms very similar to grip, and a rash similar to German measles was present, particularly over the shoulders and abdomen. As German measles were prevalent in the community at that time, it was considered German measles; and after remaining in bed for several days I returned to work and again took up the feeding of the lice. The general feeling previously noted was present with increasing intensity. By May 15th, the number of lice in our reserve stock had increased to about 1,200, and May 28th, I was again forced to remain in bed. The family physician was called and diagnosed the case as possibly grip. The next day he was again called since a distinct rash was present all over the body. The rash was considered quite typical of German measles, but other symptoms of measles were absent. The heart was normal, the pulse about 90, and the temperature varied from 100 to 102. A blood count revealed a normal number of leukocytes and red corpuscles. A severe headache was experienced, accompanied with pains in the legs, not only along the shins but also in the calves of the legs and the soles of the feet, while intense pain was present in all the joints of the body. The appetite was lost for several days, and the tongue was heavily coated. Dr. A. D. Hirschfelder, who has been assisting on the louse problem, saw me at this time and considered that it was not German measles, nor was it grip, but might be trench fever. Glandular enlargement was absent and no enlargement of the spleen was noted. Recovery was complete except for a general weak condition by June 4th.

"I again took up the feeding of the lice, June 6th, with the hope of producing the symptoms again and deciding if the illness was really caused by the lice, and, if possible, whether it was trench fever. The lice numbered about 800 adults, which gradually died off while young lice hatched from the eggs until by June 22nd about 1,800 young lice were being fed. During the early period between June 6th and 15th, no lassitude was noticed, but from about the 17th on, it gradually returned as the number of lice increased, until the 27th and 28th when it was pronounced. On the 29th I was feeling so miserable that it was a decided effort to get up in the morning and again feed the lice. The symptoms were the same as in the two previous illnesses. If the illness was due to the organism of trench fever, a day or two spent in the open with plenty of exercise would hardly prevent the attack, but if it was due to a toxin or toxins, it might be possible, by plenty of fresh air and exercise, to throw off the toxins and escape the attack; hence the 29th and 30th were spent in the open, rowing and fishing. During the 29th the symptoms were still quite pronounced, but gradually disappeared on the 30th, although a general tired feeling persisted for several days. Since that time the lice have not been fed, and two weeks in July were spent on a vacation in the open. The result has been the total disappearance of the peculiar tired feeling in the legs and feet and a return to perfectly normal health."

The foregoing is suggestive that the clothes louse, if present in large numbers, may produce an illness, which appears to be an intoxication of the system, with some toxin that they are capable of introducing at the time of feeding. It is also suggestive that some of the symptoms of trench fever encountered in certain cases may not be due to the organism of trench fever but to certain toxins introduced by the lice.

Without entering into a classification of the Anoplura in which four families including fifteen genera are recognized, they may be regarded as falling into two orders, *Siphunculata*, *Sucking Lice* and *Mallophaga*, *Biting Lice*.

While most mammals may harbour both varieties, the biting lice appear to be less harmful to the host, owing to their methods of feeding on epidermal scales and products of exfoliation, instead of puncturing the skin for the sustaining blood and lymph.

Bird lice are all included under the order *Mallophaga*, and live by feeding on the epidermal products such as feathers, scales, etc. Blood dried on the skin may be eaten, but bird lice are not bloodsuckers.

Since they do not pierce the skin their depredations may be less inimical to the welfare of the host than the activities of the suctorial variety.

While these prefatory remarks may seem rather foreign to the subject in hand, they appear relevant in view of the fact that a traditional belief exists amongst poultrymen that the head louse, *Lipeurus heterographus*, is responsible for a heavy mortality amongst young chicks.

This parasite is well called the head louse, because of its predilection for this portion of the body. Infestation is most prominent on the feathers of the head and neck, although a few lice are occasionally found on the feathers of the wings. It has often been stated that lice dig into the flesh and even eat the brains of chickens. Undoubtedly this is the species that has caused this misconception. Often it is found on a feather with its head close to the body of the chicken but apparently never imbedded in the skin.

The head louse is much darker in colour than the ordinary body lice of poultry, *Menopon pallidum* and *Menopon biseriatum*, and is quite easily seen when the feathers, especially if white, are separated. The body is edged with dark bands and there are markings of the same shade across the abdomen. The first segments of the antennæ of the male are very large and the third segments are branched, while the antennæ of the female are more slender. This louse averages slightly less than one-tenth of an inch in length.

It is much less active than the body lice, but can easily slip between the barbs of the feathers and disappear from sight. It can live away from the fowl at normal temperatures for a longer period than the body lice, probably because it is accustomed to the cooler region of the feathers.

The eggs are glued to the feathers of the head and neck, being attached to the barbs often between the shaft and aftershaft. Observation has shown that the eggs hatch in from four to five days during warm weather, but the period may be extended during the cold months of the year. Our own experience shows that the time necessary to complete the life cycle from egg to adult during moderately warm weather is about twelve days but this is undoubtedly subject to seasonable variation.

To determine whether or not the head louse was capable of causing a heavy mortality amongst young chicks, experiments were undertaken during the summer of 1922.

On June 17th, two chicks sent in for autopsy were found to be infested with head lice, and on the following day three chicks about one month of age were infected to propagate a sufficient number for experimental work, an average of six to eight mature lice being placed upon each bird.

On July 7th, these three chicks were found to be heavily infested, making the further carrying on of experimental work possible.

On August 12th, thirty chicks were selected from a newly-hatched bunch of incubator birds and were divided into two pens of fifteen birds each.

These chicks were fourteen days of age and had been carried through to this period to eliminate weaklings.

On August 12th, one pen comprising fifteen chicks were infected with head lice from the older birds, from six to ten adult lice, males and females, being placed upon each chick, by pulling the feathers with adhering lice from the older

chicks and allowing the lice to transfer naturally to the fluff of the head. In addition to this, two infected birds were placed under the hover at night and removed the next morning.

The following table illustrates the comparative results, viz., the weekly weights, feed consumed, etc.:

Infected Pen No. 1	Control Pen No. 2
Chicks hatched July 30, 1922.	Chicks infected July 30—14 days old.
Infected Aug. 12—14 days old.	
Week of Aug. 12-19	*Week of Aug. 12-19*
Number of birds living, 15.	Number of birds living, 15.
Total weight, Aug. 12, 1 lb. 8 oz.	Total weight, Aug. 12, 1 lb. 6 oz.
Total weight, Aug. 19, 2 lb. 12 oz.	Total weight, Aug. 19, 2 lb. 2 oz.
Total gain for week, 1 lb. 4 oz.	Total gain for week, 1 lb. 2 oz.
Average gain per bird, 1.33 oz.	Average gain per bird, 1.2 oz.
Feed consumed "Mash," 7 lb.	Feed consumed "Mash," 6 lb.
Mortality, nil.	Mortality, nil.
Week of Aug. 19-26	*Week of Aug. 19-26*
Number of birds living, 13.	Number of birds living, 14.
Total weight, Aug. 19, 2 lb. 12 oz.	Total weight, Aug. 19, 2 lb. 8 oz.
Total weight, Aug. 26, 3 lb. 15 oz.	Total weight, Aug. 26, 3 lb. 12 oz.
Total gain for week, 1 lb. 3 oz.	Total gain for week, 1. lb. 4 oz.
Average gain per bird, 1.46 oz.	Average gain per bird, 1.42 oz.
Feed consumed "Mash," 10½ lb.	Feed consumed "Mash," 9¼ lb.
Mortality, 2 birds.	Mortality, 1 bird killed by rats on August 25.
1 died Aug. 23, 1 died Aug. 24.	
Week of Aug. 26—Sept. 3	*Week of Aug. 26—Sept. 3*
Number of birds living, 13	Number of birds living, 14.
Total weight Aug. 26, 3 lb. 15 oz.	Total weight Aug. 26, 3 lb. 12 oz.
Total weight Sept. 3, 5 lb. 2 oz.	Total weight Sept. 3, 4 lb. 13 oz.
Total gain for week, 1 lb. 3 oz.	Total gain for week, 1 lb. 1 oz.
Average gain per bird, 1.46 oz.	Average gain per bird, 1.21 oz.
Feed consumed "Mash," 12 lbs.	Feed consumed "Mash," 10.8 lb.
Mortality, nil.	Mortality, nil.
Week of Sept. 3–10	*Week of Sept. 3–10.*
Number of birds living, 12.	Number of birds living, 13.
Total weight Sept. 3, 5 lb. 2 oz.	Total weight Sept. 3, 4 lb. 13 oz.
Total weight Sept. 10, 6 lb. 2 oz.	Total weight Sept. 10, 6 lb.
Total gain for week, 1 lb.	Total gain for week, 1 lb. 3 oz.
Average gain per bird, 1.33 oz.	Average gain per bird, 1.46 oz.
Feed consumed "Mash," 10¾ lb.	Feed consumed "Mash," 12 lb.
Mortality, 1 chick died on Sept. 8.	Mortality, 1 bird died on Sept. 3.

When the weighings were discontinued on September 18th, 1922, the total aggregate weight of the twenty-five birds was found to be 12 lbs. 8 ounces, or an average weight per bird of 8 ounces.

Upon summarizing these results it will be noted that there was very little to choose between the infected and control pens, the average gain and mortality rate being about equal.

Paradoxical as it may seem, the chicks in the infected pen at the end of the experiment appeared to the casual observer to be more virile and in better condition than the birds in the control pen.

A second experiment was started on September 27th, 1922, fifty chicks being selected for the purpose.

These chicks were picked from a flock numbering about 300 birds, all of which were two weeks of age and were selected for virility, etc. Twenty-five chicks were used for a control pen and twenty-five were infected, from six to ten adult lice being placed upon each bird.

On the 29th of September it was discovered that twenty of the original 300 chicks had previously been in contact with adult fowls and these were subsequently placed in contact with the entire number which resulted in all of them becoming infested with head lice. This unfortunate circumstance necessitated treatment of all controls, blue ointment being used for the purpose. The ointment used was the ordinary commercial preparation diluted to half normal strength. One application only was necessary to clean up the infection and no untoward effects were observed in any of the treated birds.

Without burdening you with full details of weighing, feeding, etc., it may be sufficient to state that our results were somewhat similar to the first experiment, the mortality rate being average and practically the same for both pens. The remaining 250 chicks were kept under observation until late in November and during this period no inordinate death rate was noted. Upon actual count some individual chicks were found to harbour over one hundred adult lice and as time progressed and the chicks grew, the numbers diminished until only a few lice could be detected.

References to the head louse of chicks are mostly contained in popular bulletins and check lists of animal parasites, and it is therefore little to be wondered at that this parasite has been given a pathological role to which it is little entitled, this impression being based upon the personal observations of practical poultrymen little familiar with the many factors contributing to the heavy death rate amongst early-hatched chicks. When it is considered that out of every four eggs incubated, an average of only one chick is raised to maturity, and that in many cases of early spring hatching by artificial methods, the mortality amongst hatched chicks may run well over 50 per cent. during the first ten days of life, due to such conditions as aspergillosis or brooder pneumonia, white diarrhœa, defective incubation, etc., we have little reason for holding head lice responsible for the heavy mortality during this hazardous period. Admittedly, parasitism of any nature or degree must be considered in relation to susceptibility to disease, for undoubtedly a lowered resistance resulting from a heavy infection tends to a fatal issue. In many cases, however, a heavy degree of infestation is an index of lowered resistance from debility and faulty metabolism, or in the case of fowls, from confinement, overcrowding and a withdrawal of the natural means of defense, and in such instances, the presence of parasites may be regarded as the result and not the cause of impaired vitality.

While our investigations concerning this parasite are limited, sufficient experimental work has been done to satisfy the writer that the head louse of chickens is a much maligned parasite from whose passivity has been created a role of activity which from personal observation or analogy I judge to be little warranted.

INSECTS OF THE SEASON IN QUEBEC IN 1923

Georges Maheux, Provincial Entomologist, Quebec

The summer of 1923 has been a very heavy season for insect pests, and damages, as a whole, easily double last year's figure. Sometimes it appeared as if insects of normally very little importance thought it compulsory to show, in a brighter light, their noxious power. This explains why the ordinary short list of important pests is so greatly extended.

Vegetable Insects

Cutworms have been very active in all vegetable-growing sections. Apart from the customary victims (cabbage, tobacco, tomato), they have destroyed entire fields of onions around Quebec city (May 27-June 20).

Onion Maggot (*Phorbia ceparum*). A remarkable outbreak of this pest was recorded and great damages registered (June 15-30). Sodium arsenite (half-ounce per gallon) gave very satisfactory results in our ten experimental fields.

Cabbage Worm (*Pieris rapæ*) kept steadily at work from June 20th until the very end of the season, cabbages and cauliflowers suffering equally.

Cabbage Maggot (*Phorbia brassicæ*). Very active during the last part of June. Fields treated with corrosive sublimate, even when found in bad condition, came back wonderfully well. An unprotected field around Three Rivers suffered a total loss of 1,500 plants. Radishes were also among the chief victims.

Potato Beetles (*Leptinotarsa decemlineata*) were abundant in most parts of the province and were aided in their work of destruction, in many scattered localities, by the blister beetle (*Macrobasis unicolor*). Beans were also affected by the last-named pest, which is certainly on the increase in Quebec.

Flea-beetle (*Epitrix cucumeris*) showed a decrease over last year and was not seen so early in the fields (June 3-10).

Cucumber Beetle (*Diabrotica vittata*), scarcely noticeable in 1922, did important damage to cucumbers in Montreal, Three Rivers, Quebec and Rimouski districts. (June 20-July 25.)

Field Crop Insects

Grasshoppers (*Melanoplus atlanis* and *M. femur-rubrum*). Last year the Saint Maurice river valley had been seriously infested with swarms of grasshoppers but the control work, started in due time, gave very good results and this year that district had no trouble from that source. The counties of Charlevoix and Pontiac had, last summer, some sections badly affected with the plague. These sections of poor sandy soil, on account of a continuous drought, had only a very light crop of grain. Grasshoppers had an easy task to destroy these few signs of vegetation.

White Grubs (*Lachnosterna sp.*) are becoming a serious menace to old pasture lands. Reports from some localities in Eastern Townships and south of Montreal show that entire fields are ruined by white grubs. Around Drummondville counts give an average of six grubs to the square foot. Once more farmers should see the dangers of a "long range" rotation.

Orchard Insects

Apple Maggots (*Rhagoletis pomonella*) have spread considerably this season and caused serious damage to apples. A change in spraying operations will have to be made to control this pest.

Plum Curculio (*Conotrachelus nenuphar*) was, in importance, second on the list in the whole province.

Apple Aphis (*Aphis pomi* and *A. sorbi*) did not seem to be so numerous as last year or to cause as much damage.

Pistol and Cigar Case-Bearers (*Coleophora malivorella* and *C. fletcherella*) were so abundant around the city of Valleyfield as to almost completely defoliate the trees and ruin the apple crop in many orchards. Lack of regular and thorough spraying explains this local outbreak. Elsewhere, a few reports have been made concerning the same pest, but damages were not so important.

Bud Moth (*Tmetocera ocellana*) showed in about the same numbers as last year. No special case of heavy infestation were reported.

Apple Tent Caterpillar (*M. americana*). Important damage in June.

Fruit Tree Leaf-rollfr (*Cacœcia argyrospila*) was widely spread and was certainly more abundant than the previous season (June 5-20).

Apple Borer (*Saperda candida*). More numerous than usual in some nurseries. One orchard around Quebec city was cut down on account of that pest.

Shade-Tree Insects

Tent Caterpillars (*Malacosoma americana* and *M. disstria*). Important outbreak of these pests for the second successive year: showed large increase over 1922. Distribution general along the St. Lawrence river. The Apple Tent Caterpillar was chiefly injurious to poplars, maples, apple and cherry trees. The Forest Tent Caterpillar defoliated poplars and maples and seemed more abundant than the other species. First hatching at Quebec, May 17th.

Spiny Elm Caterpillar (*Euvanessa antiopa*). Found more numerous than usual, between June 20-July 20, on elms and poplars. First adults seen May 7th; first eggs, May 8th.

White Tussock Moth Caterpillar (*Hemerocampa leucostigma*). A decrease over the two last years (Quebec, July 15-August 10).

Adults of *Eulype hastata* were found in the woods, on the north shore of the St. Lawrence, in tremendous numbers from July 1st to 20th. In Charlevoix county horses were scared to enter the bush; specimens seen in Quebec at night in large numbers.

Fall Webworm (*Hyphantria textor*). Seen in good numbers during September. Not important on shade trees. Mostly confined to wild-cherry trees along roads.

Miscellaneous Insects

Important Currant Worm (*Pteronus ribesii*). Last part of June, in about the usual number.

Currant Aphis (*Myzus ribis*). Widely spread and in large numbers.

Three-lined Beetle (*Lema trilineata*). Locally observed on various vegetable and ornamental plants.

Tortoise Beetles (*Coptocycla bicolor* and *C. signifera*) damaging convolvulus, eating holes in the leaves. Two cases reported.

THE SPREAD AND DEGREE OF INFESTATION OF THE EUROPEAN CORN BORER IN ONTARIO IN 1923

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The first year, 1920, that the corn borer was discovered in Ontario, thirty-five townships were found infested, covering an area of 2,780 square miles. In 1921, seventy-one additional townships were added to the quarantine; in 1922, forty-five more were infested and eleven were included in the quarantined territory on account of their situation. The area under quarantine in Ontario at the beginning of this season, 1923, totalled 12,616 square miles, as compared with 13,857 square miles similarly affected in the various infested portions of the United States.

This season, 1923, scouting of the border territory was again carried on during the months of August and September. All the corn-growing townships between Lake Huron, Georgian Bay and Lake Simcoe were examined as well as the remaining unquarantined townships of the counties of York, Ontario, Durham, Victoria, Northumberland, Peterborough, and Prince Edward. On account of the possibility of water distribution, all the shore townships along the St. Lawrence river, as far down as Cornwall, were inspected and portions of the county of Carleton were also scouted.

As a result of the above inspection, only eight additional townships were found infested; one in Huron county, three in Bruce, two in Wellington, one in York, and one in Durham county. All of the above townships adjoin the quarantined territory with the exception of Saugeen and Kincardine in Bruce county. The Saugeen township infestation represents the most northern point of infestation in Canada and in this connection it is interesting to note that several hills of corn were found infested in the field, whereas at the other points discovered this year, only isolated stalks were found infested. The northern spread along Lake Huron again demonstrates the relative importance of lake shore conditions in corn-borer distribution and an effort will be made to watch the development of the pest in the township of Saugeen.

Possibilities of Further Spread

From the viewpoint of food supply, it is, of course, possible that the European corn borer may spread over a much larger area in the province of Ontario than it covers at the present time. The reports of the foremen of the scouting parties, who worked Grey county in the past two seasons, would indicate that the interior of this county does not grow corn to any extent. Dufferin county is also unimportant as well as northern and western Simcoe county in general. Northern Ontario county, Victoria county, and northern Peterborough county may be similarly classified, but corn is a sufficiently important crop in various other uninfested sections of the province to warrant efforts being made to retard the spread. An important portion of Wellington county is still uninfested. A large amount of corn is grown in the shore townships of Lake Simcoe, the townships bordering the quarantined territory in the counties of York, Ontario, Durham, Northumberland, southern Peterboro, and Prince Edward county usually grow a large acreage of corn, and the townships along the St. Lawrence river would supply a sufficient amount of corn to favour the development of an outbreak. The counties of Glengarry, Prescott and Russell are somewhat important. The county of Lanark grows about 11,000 acres and the county of Carleton ranks fifth in importance in the province in silage-corn production, with about 18,000 acres.

Degrees of Infestation in Infested Territory

With the exception of a limited area in the centre of the infestation where accurate records were made by Messrs. Crawford and Spencer, during the investigational work, no special effort was attempted until last year to record the actual degree of infestation in the older portions of the infested territory. The work in this connection last season was carried on after the completion of the border-scouting in late September. Observations were made at various points in three concentric circles surrounding Union village, the centre of the infestation. On account of the small staff available, and the fact that the corn was then being cut, the records were taken from only one field at each locality. An effort was made to locate the most heavily-infested field at each point and the degree of infestation was obtained from 300 representative stalks together with relating data regarding the history of the field. This method did not show the average conditions but substantiated the original decision regarding the centre of the outbreak and verified established opinions concerning the benefit of late planting.

In 1923 a definite system of recording the development of the infestation was inaugurated with the intention of continuing the work for several seasons to supply accurate information regarding the importance of the pest under the varied soil and crop conditions which are encountered in the large territory affected and to locate local outbreaks. Definite points in approximately the same three circles as used last year were chosen and include the counties of Elgin and Middlesex and the western parts of Oxford and Norfolk. In addition various points in the counties of Essex, Huron, Perth, Oxford, Welland, and Lincoln have been included in this season's records.

The method of crop-handling and climatic conditions are apparently very favourable for the corn borer in a large proportion of the infested territory. In 1920, the first year of discovery, accurate infestation records were taken from only a small area, due to the late date investigational work was started. One field near Port Stanley showed 99 per cent. of stalks infested. Ten miles west the heaviest infestation to be found was one per cent., and beyond that the degree diminished rapidly. The north and northeastern spread were somewhat greater than the above, and New Sarum, about ten miles from Union, showed approximately five per cent. stalk infestation. A marked increase occurred in all sections in the central area in 1921 and as noted above, the infested territory extended to sixty-five additional townships.

In 1922, 100 per cent. stalk infestation was very common near the control area, and in the records taken on the inner concentric circle, within a radius of six to eight miles from Union, the per cent. stalk infestation varied from 10.6 per cent. on the northeast and 90.3 per cent. on the west to 100 per cent. on the east. The second circle radiating about fifteen miles from Union, showed degrees of infestation varying from 7 per cent. to 77 per cent., the highest occurring on the west, in Dunwich township. The third circle, covering localities within a radius of thirty miles of Union, showed infestations ranging from zero to 6 per cent., the highest being on the west, in Aldborouth township.

As stated previously, our 1923 records were obtained in a different manner from those of 1922. It is possible that individual fields between the record points would show a greater degree of infestation than any of those studied. Nevertheless the survey will represent as near as possible the average intensity of infestation. This season's circle records cannot be compared accurately with last year's, but they will serve as a basis for standard records in future seasons.

In obtaining the 1923 records, the five nearest fields to a definite "cross-road" point were examined. One hundred stalks were examined from three different parts of the field, in the case of the records from the three circles. One thousand stalks were examined from various parts of the fields concerned at the several points in the other counties. The following is a summary of the conditions noted:

Area	Highest Per Cent. Infestation	Lowest Per Cent. Infestation	Average Per Cent. Infestation	Total Fields Examined
Circle No. 1 (6-8 miles from Union)	68.0	4.33	30.16	55
Circle No. 2 (15 miles from Union)	47.0	0.	16.97	80
Circle No. 3 (30 miles from Union)	7.66	0.	1.93	135
Essex County (80-110 miles from Union)	13.66	0.	1.31	48
Huron County (50-70 miles from Union)	1.4	0.	0.30	12
Lincoln County (95-115 miles from Union)	0.6	0.	0.20	15
Norfolk, east (45 miles from Union)	1.2	0.	0.32	5
Oxford (40-45 miles from Union)	2.8	0.	0.93	15
Perth (50-60 miles from Union)	1.3	0.1	0.57	10
Welland (95-115 miles from Union)	4.4	0.	1.06	45

NOTE.—Mileage stated represents distance from centre of infestation. Welland county first found infested in 1920 and apparently a separate infestation.

In comparing this season's records of circle No. 3 with those of last year, a very marked increase is evident, especially in a north and northeast direction and in the districts near the lake on both of the eastern and western edges. The increase, in the outside circle, is also demonstrated by the fact that the average infestation in the 135 fields in the outside circle is now 1.93 per cent., whereas two and three years ago, our inspectors had to search the majority of the field in most cases to find an infested stalk.

This season, 1923, a careful consecutive field examination, chiefly in the counties of Elgin and Middlesex, has been carried on under the direction of Professor Caesar, Provincial Entomologist of Ontario. Records were taken from every field along the main road running south to north between Union and Lucan, a distance of thirty-five miles, and also west to east between St. Thomas and Delhi, a distance of thirty-six miles. The following is a summary of the results:

District	Distance Miles	Average Per Cent. Infestation	No. Fields Inspected
North and South—			
Union—St. Thomas	5	25.9	30
St. Thomas—north	5	26.2	26
St. Thomas—north 5-10 miles	5	18.3	22
St. Thomas—north 10-15 (London)	5	21.5	16
Vicinity of London	..	20.8	16
London—north	5	6.1	20
London—north 5-10 miles	5	1.6	9
London—north 10-16 miles	6–7	1.6	8
East and West—			
St. Thomas—New Sarum	5	25.9	18
New Sarum—Aylmer	6	26.5	31
Aylmer—east	8	19.1	36
East to Tillsonburg	8	12.8	6
Tillsonburg—east	5	2.1	10
East to Delhi	5	1.6	12

As Essex county is the greatest corn-growing county of the province, with a corn acreage of 80,000 acres, the conditions there will naturally be of interest. Mersea township was found infested in 1921 and infested stalks were difficult to locate. The remainder of the county was scouted but nothing was found. In 1922, collections were made in each remaining township. Many fields of corn were examined in the central and northern townships before larvæ were discovered, but in the southern townships collections were more easily made, although the infestation was extremely light. Our records in Essex county this season show a decided increase. Standard records were taken from five fields at eight points in the shore townships, and also at Pelee Island, the results of which are as follows:

Township	Locality	Highest Per Cent. Infestation	Lowest Per Cent. Infestation	Average Per Cent. Infestation
Mersea	Hillman	5.5	2.2	3.48
Gosfield—south	Ruthven	1.2	0.3	0.86
Gosfield "	Arner	0.4	0.0	0.14
Colchester—south	Oxley	0.8	0.0	0.34
Colchester "	Harrow	0.4	0.2	0.28
Colchester "	Marshfield	0.9	0.0	0.42
Malden	Comet	0.9	0.0	0.42
Malden	Malden Center	0.6	0.0	0.3
Pelee Island	Misc. (8 fields)	13.66	0.33	5.89

Pelee Island was found infested in 1921. The degree of infestation was very low at that time. In 1922, the Pelee Island conditions were not studied, but the survey of 1923 showed a remarkable increase and the infestation was much more intense than that of the neighbouring mainland.

The infestation in Welland county, first found in 1920, is increasing, but much more slowly than in the western territory. The results of the records in the other counties listed also indicate an increase, although an exact degree of comparison is impossible, owing to the lack of necessary information.

In reference to the 1923 increase, in territory near the centre of the outbreak, it has been most important to the north and east. The relation of the corn borer to the corn-canning industry in general has always been regarded with anxiety. This recent development is unfortunate in that it has affected canning-corn crops in the Aylmer region very seriously. The infestation in all other canning districts is as yet comparatively light.

In 1920, the degree of infestation in the districts from which the Aylmer canning factory received its corn supply would average five to ten per cent. stalk infestation. In 1921, various canning-corn fields ran from 21 per cent. to 74 per cent. ear infestation. In 1922 the factory refused material with ten per cent. ear infestation, with the result that corn was refused from one or two fields and two loads from other fields were turned back. This year the situation became serious. Corn delivered to the factory by twenty-two growers on September 4th was examined. Notwithstanding the fact that practically all growers had already culled from five to thirty per cent. in the field, the corn presented to the factory varied in ear infestation from six to fifty-six per cent., and from two to forty-three per cent. of the cobs showed actual feeding. As a result of this condition, a special control campaign has been started in the district under the personal direction of Prof. L. Caesar, Provincial Entomologist.

The European corn borer has already established its importance as a serious corn-crop pest in approximately one thousand square miles of territory in Ontario. In Massachusetts, it is causing serious financial losses, through infestation in other crops in addition to corn, and the development of similar conditions in portions of the Ontario infested area is regarded as possible.

Greater efforts were made this season in the enforcement of the quarantine which gave further assurance of the importance of infested table-corn transportation as a means of spread. One phase of the quarantine work consisted of automobile inspection. During the week-ends a total of 1,434 automobiles were held up at different points on the quarantine border from which ninety dozen ears were seized. Seventeen ears were found infested.

In 1921, the township of Pickering in Ontario county was found infested, and in 1922 a collection of the borer was taken in Brighton township, Northumberland county. These outbreaks were situated some distance from the nearest infestation discovered in the years mentioned and were very probably due to the movement of infested material. The difficulty of teaching control methods and the financial outlay involved is naturally associated with the size of the infested territory and the extent of crop losses is likewise similarly affected. A large corn-growing acreage in Ontario is still uninfested and southwestern Quebec grows corn abundantly. It is therefore necessary to expend every effort possible to prevent the artificial spread of the pest to new districts, by means of strict quarantine enforcement.

THE STATUS OF THE CONTROL PRACTICE FOR THE EUROPEAN CORN BORER IN ONTARIO

(A Progress Report)

H. G. Crawford, Entomologist, Division of Field Crop and Garden Insects, Entomological Branch, Department of Agriculture, Ottawa

The preliminary scouting and investigations of the European corn borer in Canada indicated that the focus of the most intense infestation in 1920 lay in the region surrounding the village of Union, midway between St. Thomas and the Lake Erie shore, in the county of Elgin, Ontario. The indications in 1920 were amply confirmed in 1921 by a devastating increase of the injury caused by the pest in this vicinity. Hence the area in which control measures could be tried with greatest benefit and with most clear-cut results was selected in this region. Here a block of farms two miles square, referred to as the control area with the village of Union in the centre, was decided upon as the area of most pressing need. The area involved was very representative and presented a great variety of conditions in the immediate vicinity both physiographic and agricultural, the corn varying from that in household kitchen gardens and a considerable acreage of early market sweet corn to general farm croppings.

Within this area ever since the fall of 1921 every reasonable effort has been made to ensure that the general control measures were put into practice by the growers. Considering the short time during which the operations have been carried on, the lack of care on the part of farmers here and there, the character of the methods themselves, the small size of the area, and the motility of the moths, the results have been most encouraging. The co-operation of the farmers

has been wholehearted and with the exception of some assistance in the spring of 1921 in the cleaning up of the barnyards, the work has all been done by the growers.

The suggestions made for the control were those indicated as likely to be of the greatest value by the investigations carried out by the Departments of Agriculture of the Dominion of Canada and the Province of Ontario, and reported upon to this society in 1921 by Mr. G. J. Spencer. Briefly, they may be referred to as the farm clean-up and the practice of late planting. The clean-up implied that all refuse from one year's crop is either underground or burned by the first of June of the following year, while the planting was advised to be as late as was safe in the community with the assurance of getting a good crop. The early fall frosts were the chief limiting factors in determining lateness of planting.

In general in the area between St. Thomas and the Lake Erie shore, the attack in 1920 was the most intense suffered until that time and was a decided increase over any previous attack. Farmers had become worried and the first volunteer information was received late in the season from near St. Thomas. By this time, however, farmers in the Union area were growing corn with 99 per cent.* infestation without official complaint, and the sweet corn in the district was most severely infested.

The next year the investigations opened with vigour and the area was brought under constant and careful study. Hence our information from this time on is much more detailed.

In 1921, the attack increased very markedly in intensity, the average infestation for six farms studied in 1920 rose from 77.2 per cent. to 85 per cent, and the stalk infestation for the field corn in the whole control area (four square miles—45 fields) was 58.17 per cent. Many fields of flint corn were 100 per cent. infested and ruined. Dent corn attained an infestation of 78 per cent., and from over twenty acres of early market sweet corn the product was a total loss, as it was not worth while culling the crop for the few saleable ears.

In 1922 (37 fields), conditions within the control area following the first control efforts in the fall of 1921 and spring of 1922 presented an entirely different aspect. The average infestation dropped to 26.25 per cent., and the cob injury and other manifestations of the attack decreased markedly. Comparing the attack with that of 1921 there was a most remarkable decrease in intensity and loss. The infestation of the market sweet corn was still high where planted early, though where planted late was commercially profitable. However, as there was almost no sweet corn grown on account of the destruction of 1921, it hardly serves for valid comparison.

Throughout the general district surrounding the control area there was a marked increase in the infestation. This was most noticeable to the west in the Fingal region, and to the east in the Dexter region. To the north the increase was not as abrupt though it was quite distinct; southward the infestation decreased as a large proportion of the few growers in this region were putting the control methods into operation. In general, although careful systematic studies were not made in the fields surrounding the control area, it was conspicuous that the infestation definitely increased upon the northern, western and eastern sides of the area. Fields much more intensely infested than any within the control area were easily found even within a few hundred yards of its margin.

*The percentage infestation of stalks refers to ear-bearing stalks unless otherwise noted.

In 1923, conditions within the control area (34 fields), with an average stalk infestation of 36.48 per cent., indicated an increase in intensity of about 10 per cent. in the stalks and a somewhat higher increase in percentage of injury to plant structures such as cobs and shanks over the 1922 conditions. This increase was generally distributed throughout the whole control area. Even this increase was still 22 per cent. less than the 1921 average. None of the sweet corn of 1923 was ruined, the highest losses in the most severely infested fields not exceeding 50 per cent.

As was the case in 1922, the infestation in the control area was distinctly less intense than that in the surrounding areas. The most severely infested fields in the district were all outside the control zone. This is in marked contrast with the former distribution of intensity, when the focus for most intense infestation and loss was within this area, as in 1920 and 1921.

No definite figure has been developed to indicate exactly the actual loss in any year. However, an idea of the relative annual losses and severity of attack can be secured if we assume as an estimate that the loss as a farm crop in the control area was about 15 per cent. in 1921, that in 1922 would be about 2 per cent., and that in 1923 not over 4 per cent.

The general trend of infestation in the surrounding district has been in marked contrast to the situation within the control area. To the west for six or seven miles the infestation increased very abruptly during the years 1921 and 1922 when very severe losses were suffered. The intensity, however, in 1923 in this region decreased quite markedly from this high point. Just why is not known. To the north the infestation has increased steadily, but not nearly as abruptly as in other directions, throughout the period from 1920 to 1923. To the northeast and east the trend of the infestation has been steadily upward, both in percentage infestation and in total population of larvæ. At the present time, November, 1923, the focus of highest infestation and loss has shifted to the north and east and comprises a more or less oval area beginning at the northeast corner of the control area and extending for about 20 miles in a general northeasterly direction. The increase in infestation in this area was most conspicuous in 1923, both in flint corn and in canning sweet corn.

Very little mention has been made of the narrow strip of country to the south of the control area. It consists of a zone one mile wide, which does not comprise many corn growers, lying between the control area and the lake shore. These growers in the cases where they have instituted the practice of late planting have been experiencing a clear decrease of infestation, though in other cases they have suffered very severe losses. In general the trend is downward, both on account of the control practice and also doubtless on account of the protection afforded by the destruction of larvæ in the control area to the north.

The control suggestions made to the farmers in the observation area by the personal canvass were reinforced by the increasing losses being suffered and resulted in a noteworthy change in certain phases of handling the corn crop in the area. In 1922, the last year of normal planting, 55.5 per cent. of the corn crop was of the flint type, the most susceptible type to European corn borer infestation and damage. Of this part of the local crop 45 per cent. was planted by the 24th of May, 78 per cent. by the 1st of June and 85 per cent. by July 6th. Of the dent corn of this year 10 per cent. only was planted by May 24th, 85 per cent. by June 1st and 90 per cent. by June 6th.

In 1922, after the first late planting suggestion, the planting dates were materially changed. The following tabulation summarizes the general situation:

Tabulation Showing the Proportion of Each Type of Field Corn Grown and the Seasonable Distribution of the Planting Dates in the Control Area For the Years 1921-1923

Year	Type of Corn	Per Cent. of Crop by Type	Per Cent. of Crop planted by May 24	Per Cent. of Crop planted by June 1	Per Cent. of Crop planted by June 6	Per Cent. of Crop planted after June 6
1921	Flint	55.5	45	78	85	15
	Dent	44.5	10	85	90	10
1922	Flint	24.5	10	26	60	40
	Dent	75.5	0	28	60	40
1923	Flint	38.5	0	20	55	45
	Dent	61.8	0	46	53	47

From the above table the abrupt drop in the percentage of flint corn grown is clear, particularly in 1922. This change in variety of corn used was accompanied by a retardation in the date of planting, the most important change being in the amount of corn planted before the 1st of June. As can be noted, in 1923, though the proportion of flint corn increased, the average planting dates for the whole crop were, if anything, even a little later than in 1922. The increased planting of flint corn was due to the increased confidence of the farmers which followed the excellent results of the control operations in 1922.

In very large measure the freedom of the corn in 1922 from severe loss could be ascribed to the late planting, while that of 1923 was due in largest measure to the reduction in numbers of moths and the dilution of the attack associated with the late season.

As has been noted above, the control was not as effective in 1923 as in 1922 in spite of the still further retardation of the planting dates due in this case, both to design and weather conditions. This increase in infestation was due chiefly to the very late spring. The cool weather held the development of the insect back even more than it retarded the development of the corn, with the general result that much of the corn was in condition to serve as good egg-laying quarters from the time that the moths began to fly. Egg-laying in 1923 did not begin till July 4th, which was at least 13 days later than in 1921 or 1922, and continued in appreciable quantities till August 2nd; even after that date scattered eggs were being laid. This resulted in distributing the attack and reduced the extreme infestations. There were but two fields in the control area which suffered measurable damage, and at the end of the season the control area as a whole contrasted most favourably with the surrounding country.

Sharp contrasts in the demonstration of the value of control efforts were difficult to obtain owing to the fact that a great deal of publicity for control practice has been carried on. Growers throughout the whole of the originally severely infested area have, to a greater extent than they realize, put the suggestion into practice. This is particularly true of the practice of late planting. The general quality of the ploughing has also improved greatly, and the habit of cleaning out the barnyards and the burning of miscellaneous corn refuse is increasingly prevalent.

Keeping in mind that throughout the period the infestation in the immediately surrounding territory has been in general steadily increasing, there is little doubt that the control measures have had a very definite effect and have caused a material reduction of losses in the area under study. This was in spite of the fact that the area was relatively very small and was surrounded by country with heavy infestation in which little or nothing of a systematic nature was done to reduce the number of larvæ.

The results attained to date leave no doubt that in any year the widespread practice of the published control would reduce the European corn borer population to a point where field corn would be grown with practically no loss. And were these measures practised for three or four years the planting date of May 24th or earlier could again serve as the standard and early sweet corn in the most severely infested areas could probably be grown once more as a reasonably profitable enterprise. Sweet corn for the early market, on the other hand, will suffer severe losses for years after field corn can be grown free from appreciable loss.

STUDIES IN THE LIFE-HISTORY, BIONOMICS, AND CONTROL OF THE CABBAGE WORM IN ONTARIO

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The cabbage white or imported cabbage butterfly, *Pieris rapæ* L., was first taken in Canada in 1860 in the vicinity of Quebec by Mr. William Couper. Its subsequent spread south and west throughout the North American continent was surprisingly rapid, its first appearance being recorded in the United States in 1865, at Norway in the State of Maine.[1]

Before the advent of arsenicals as a popular method of controlling leaf-eating insects, the cabbage worm caused considerable losses. Even now, when spraying and dusting of cruciferous crops is so general, and despite the usual high mortality among the larvæ due to natural factors, the damage is by no means inconsiderable.

During seasons when the cabbage butterflies are very numerous the late varieties of cabbage and cauliflower may suffer considerably, large irregular holes being eaten out of the leaves, which in addition become scattered with masses of dark green excrement. The larvæ also have a tendency to concentrate on the tender leaves forming the "head," often making the latter quite unfit for market.

Chittenden[2] estimated in 1916 that at least one-tenth of the entire cabbage crop of the United States was annually destroyed by the cabbage worm, and this statement would probably apply equally well to Canada.

Seasonal History

In Ontario the butterflies may be seen on the wing from the latter part of May until the end of September. In 1923 none were seen until May 24th, when they suddenly became common. During July, August and early September they were extremely abundant in the vicinity of Ottawa, on one or two occasions several hundreds being counted at one time over a single acre of cabbages.

At Ottawa there are three well-defined generations. The butterflies of the first generation reach the height of their emergence before the middle of June; those of the second appearing first in early July, increase rapidly in numbers so that by the middle of the month they are common everywhere; the early butterflies of the third generation mingle with the last of the second during the middle of August, and continue to emerge until the end of September. It is almost certain that no butterflies emerge from third generation pupæ until the following spring.

Host Plants

The host plants of the cabbage worm are not numerous, but represent four plant families. The most favoured belong to the Cruciferæ family, including such crops as cabbage, cauliflower, radish and horse-radish. Cruciferous weeds are sought after, especially in the spring, and the flowering plant *Alyssum maritimum*, which is much used for garden borders, is also an occasional host. The garden plants *Cleome pungens* and mignonette, of the families *Capparidaceæ* and *Resedaceæ* respectively, and the canary vine and nasturtium of the family, *Tropæolaceæ*, are also attacked, but not to any serious extent. Larvæ were successfully reared on all these plants during this summer (1923) at Ottawa.

Frequent mention has been made in literature of lettuce as a food plant of the cabbage worm, but numerous attempts to induce the larvæ to feed on it at Ottawa in 1923 failed, and no lettuce showing signs of injury could be found, although many of the plants were exposed to large numbers of butterflies throughout the season.

The Life of the Individual

The male butterflies are found most commonly in the vicinity of flowers, and the females in the neighbourhood of their favourite host plants. They are conspicuous insects on account of the general colour of their wings, which is white, finely powdered with yellow. The spring generation butterflies are lighter in colour than those of the summer generation.

The tips of the forewings are marked with black, the forewings of the female in addition possessing two distinct black dots which readily distinguish it from the male, which has only one. The wing expanse measures about one and three-quarters of an inch, the female usually being slightly larger than the male.

Both sexes feed upon the nectar of flowers without which they cannot live. The flowers of dandelion, *Viola arvensis*, radish, red clover, vetch and garden stocks are the most favoured, but frequent visits are also made to pennycress, field mustard, white sweet clover, burdock and Canada thistle, and to the flowers of garden plants such as *Erysimum*, *Scabious*, *Centranthus macrosiphon*, *Clarkia*, *Hydrangea paniculata* and cultivated sneezeweed.

The flight of the butterflies is slow, irregular and usually low, but when disturbed they can travel rapidly, and often rise thirty to forty feet from the ground.

Mating and egg laying occur within twenty-four hours after emergence. While mating the male flits awkwardly from plant to plant, the female remaining passive with wings folded. In depositing her eggs the female hovers on the leaf for a moment, the tip of the abdomen being pressed firmly against the surface of the leaf and withdrawn, leaving the egg adhering. The eggs are deposited singly on any part of the plant above ground, but usually on the

lower surface of the leaves close to the leaf veins. Each female is capable of laying a considerable number of eggs, as many as 499 having been deposited on cabbage by a single female under observation.

The egg is pale greenish yellow to orange yellow in colour, elongate and somewhat bullet-shaped, tapering to a flattened point. It measures approximately 1 mm. from the base to the apex and a little less than 0.5 mm. at its greatest diameter. The surface is raised into ten longitudinal ridges accentuated by numerous small transverse markings.

The process of hatching occupies about twenty minutes. The larva tears a hole in the shell of the egg, about one-third of the distance from the apex, large enough to admit the passage of its body. On hatching it is pale-yellowish orange in colour and measures 1.5 mm. in length. Shortly after hatching the larva usually completely devours the egg-shell, often eating out a shallow circular depression in the leaf tissues where the egg had rested. Within forty-eight hours after hatching it commences to feed on the leaf tissues, the intestinal tract showing green through the integument due to the ingestion of chloroplasts.

Feeding takes place fairly slowly up to the third moult, after which the larvæ eats voraciously until just before pupating. For some hours previous to moulting the larvæ cease to feed and spin a fine platform of silk on which to rest. The actual process of moulting occupies about three or four minutes. The head of the larva is forced through the old skin immediately behind the head-capsule so that the latter remains attached to the anterior ventral surface of the head. The moulted skin is meanwhile forced back from the body by an undulating forward movement. The larva then frees itself from the discarded head-capsule by pressing it against the leaf surface while vigorously jerking its head from side to side. The discarded skin remains grey and shrivelled, firmly attached to the leaf. As it invariably disappears a few hours after moulting takes place it seems probable that the larva devours it.

When nearing maturity the larvæ often measure over 30 mm. (1¼ inches) in length and 4 mm. in width. They are dark green in colour, often showing a tinge of blue; a narrow yellowish stripe extends mid-dorsally along the back, and the spiracles are edged with yellow. Before pupation they cease to feed and migrate in search of a favourable place to transform, rarely remaining on the plants. Pupation takes place in sheltered nooks on fences, or under the loose bark of trees, the larvæ almost always exhibiting a tendency to ascend. The larva spins a pad of silk to which it attaches its caudal end and a thread of silk is also passed over the body about one-third of the distance from the head and securely fastened at each side. The larva gradually becomes shorter and thicker. Shortly after moulting the characteristic thoracic and abdominal projections develop and pupation is complete.

The chrysalids measure 18 mm. in length and 4 mm. in width. They vary considerably in colour, apparently depending somewhat on the colour of the object to which they are attached and to the amount of light to which they are subsequently exposed. Overwintering chrysalids found on exposed surfaces were pale yellowish gray, whereas those taken from dark situations were dark brown. Summer generation chrysalids on the leaves of cabbage are usually a bright green in colour, the thoracic and abdominal projections being yellow tinged with mauve. Rarely they were found coloured pale mauve tinged with yellowish green. Twenty-four hours before the imago emerges the wing pads become bright yellow and the black wing markings of the adult can be clearly seen.

The butterfly emerges by splitting the chrysalid dorsally between the lateral chitinous projections and along the mid-dorsal line forward to the head. In two to three hours it is capable of active flight.

Average Duration of Life Stages, 1923

Stage	1st Generation	2nd Generation	3rd Generation
Egg Stage	5.1 days	4.8 days	6.1 days
Larval Stage	18.0 days	16.0 days	26.5 days
Chrysalid Stage	11.1 days	9.0 days	Overwintering
Life to Adult life cycle	34.2 days	29.8 days	Overwintering
Number of 2nd Individuals Reared	23	9	13

The maximum life of the butterflies in outside rearing cages was found to be 12 days, but the majority of them lived only seven days.

Artificial Control

Control experiments, involving the treatment in three series of 5,000 early and late cabbages, with Pyrethrum powder and lead and calcium arsenate dusts and sprays, lead to the conviction that under local conditions dusting with lead arsenate and hydrated or air-slaked lime in the proportion of one part to fifteen parts is the most satisfactory form of treatment. The dusts were found more satisfactory than the sprays in that they can be mixed and applied with the aid or ordinary hand dusters, in one-fourth the time occupied in spraying. They spread and adhere well if applied when the leaves are wet with dew, whereas sprays to which soap has been added as a sticker have a low surface tension and much of the liquid is lost in the soil.

In these experiments calcium arsenate dusts gave less satisfactory results than the arsenate of lead dust, the latter giving perfect control. Calcium arsenate applied in the liquid form gave extremely poor results as well as causing some burning to the foliage. Pyrethrum powder used with four times its weight of hydrated lime proved satisfactory, but can hardly be used on a commercial scale as it costs ten times as much as the arsenate of lead dust.

Judging by this season's observations early market cabbages escape serious injury and whether treatment is ordinarily necessary or not must be left to the grower's discretion. For late cabbages and cauliflowers two applications should be sufficient in a normal season, the first about the middle of July and the second four or five weeks later. When the butterflies are very abundant a third application may be necessary early in September.

Natural Control

Despite the fecundity of the cabbage butterfly and the favourable conditions for its development presented by satisfactory climatic conditions and an abundant food supply, its numbers fluctuate greatly from season to season. This is largely due to important natural control factors which yearly account for large numbers of the pest.

Probably one of the most important of these is a larval disease known as "flacherie," which is usually present to some extent every year, occasionally occurring in epidemic form. Larvæ affected with this disease turn muddy-gray

in colour or become mottled with black, green, yellow and grey and remain attached to the plant, soft and limp, or hang suspended by the prolegs, a grayish or blackish fluid exuding from the mouth and anus. The body contents become liquid, and dead larvæ soon blacken and collapse; their juices spread over the leaves and together with their excrements serve to disseminate the disease among healthy larvæ which ingest the virus when feeding.

In 1886 Forbes[3] experimented with this disease in Illinois. He spoke of it "as a frightfully contagious and destructive disease of the European cabbage worm," and came to the conclusion that the causal organism was a micrococcus. Glaser and Chapman,[4] working more recently with a very similar disease affecting larvæ of the gypsy moth, found numerous micrococci, but concluded that the disease was due to a filtrable virus. During the past season (1923) this disease killed large numbers of larvæ used in life-history and host selection experiments, but was rarely met with in the field until late in the season, when dead larvæ became common.

In addition to disease the cabbage worm is subject to the attacks of two important hymenopterous parasites, *Apanteles glomeratus* L. of the family *Vipionidæ*, and *Pteromalus puparum* L., a small Chalcid fly. Of these the latter is probably the more useful.

Pteromalus puparum overwinters in the larval condition within its host, the adults emerging early in June, as many as 43 having been counted from a single cabbage butterfly pupa. Some of the flies reared in the insectary and fed on a weak molasses solution lived well over a month.

The host is parasitized while in the larval stage, but pupates before dying, the flies during the summer months emerging two to three weeks later through a small hole punctured in the wall of the chrysalid. Large number of cabbage worms are undoubtedly destroyed by this insect, but this fact is not readily apparent in the field because parasitized larvæ on nearing pupation migrate to locations where they are not easily found.

Apanteles glomeratus also attacks the larva of the cabbage butterfly, such larvæ being left shrivelled and dying before reaching maturity. The parasites spin up in small lemon-yellow elongate-oval cocoons held together in an irregular pile by a fine meshwork of silk close to the dying host. This year parasitized larvæ were found from July to October, but only in small numbers.

Another larval parasite is the Ichneumon fly, *Itoplectis conquisitor** Say., a specimen of which was observed on September 1st from a cabbage butterfly chrysalid at Ottawa.

Certain species of common wasps attack the larvæ, *Polistes pallipes** LeP. and *Vespula germanica** Fab. having been observed in early August devouring almost full grown specimens on cabbage foliage.

Spiders also take toll of the butterflies, many being devoured in our experimental cages during the season.

References

1. Scudder, Mem. Boston Soc. Nat. Hist. IV, 3, 1887.
2. Chittenden, U. S. F. B., 766, 1916.
3. Forbes, Bull. Ill., State Lab. Nat. Hist., 1886, Vol. II, pp. 260-276.
4. Glasser & Chapman, Jr. Econ. Ent. VI, 479, 1913.

*Species kindly determined by Mr. H. L. Viereck.

THE ENTOMOLOGICAL RECORD, 1923

Messrs. Criddle, Curran, Viereck and Buckell, Entomological Branch, Dominion Department of Agriculture

In perusing the older copies of the "Entomological Record" it will be noted that Lepidoptera occupy by far the largest space. Within a few years, however, Coleoptera assumed an equally prominent position and from that time on these two orders have remained as dominant features of the "Record."

In 1922, for the first time, Diptera exceeded all other orders in importance, and now we have Hymenoptera assuming its just place in our pages. We mention these facts because they should be gratifying to Canadian entomologists as showing that we have at last secured specialists who are able to work up nearly all our insect orders, thus giving an impetus to entomological studies so long retarded due to the impossibility of identifying our specimens.

For the information of those not fully informed of the practice originally laid down, we may state that the "Record" does not include species already listed elsewhere. On the other hand an effort is made to include all Canadian species that have been described during the year and to give a reference to the publication in which the description appeared. Any records of captures that extend the known range of a species to a marked degree are desirable but local records of insects already listed from adjacent parts are not considered of sufficient general interest to record in this publication.

Some collectors are still apparently reluctant to send in their records, but on the whole the material sent in has been very gratifying and it has added considerably to a knowledge of insect distribution.

We have again to express our indebtedness to various specialists in different parts of the world for their assistance in determining specimens. Our Coleopterists in particular owe much to Dr. Fall in this respect.

NOTES OF CAPTURES

Species preceded by an asterisk (*) described since the last Record was prepared.

Lepidoptera

(Arranged according to Barnes and McDunnough's Check List of the Lepidoptera).

Lycænidæ

* *Plebeius sæpiolus insulans* Blackm. Victoria and Gold Stream, B.C., (E. H. Blackmore).
* *Plebeius icariodes montis* Blackm. Mt. McLean, Mt. Cheam and Hope Mountains, B.C., (A. W. Hanham and R. V. Harvey).
Can. Ent., Vol. LV, No. 4, 1923.

Sphingidæ

* *Sphinx mordecai* McD. Penticton, Wellington, Vancouver and Vernon, B.C., (Anderson, Taylor, Livingstone and Venables).
Can. Ent., Vol. LV, No. 6, 1923.
749 *Amphion nessus* Cram. Victoria Beach, Man., May, (Miss B. Brooks).

Arctiidæ

942 *Hyphoraia parthenos* Harr. Transcona, Man., June, (Eric Brooks).

Noctuidæ

* *Euxoa lindseyi* Blackm. Victoria and Goldstream, B.C., (Blackmore); Calgary, Alta.
Can. Ent., Vol. LV, No. 9, 1923.
* *Euxoa dodi* McD. Lethbridge, Alta., (Seamans and Strickland); Calgary, Alta., (Wolley-Dod).
* *Euxoa clausa* McD. Lethbridge, Alta., July, (Strickland and Seamans).
* *Oncocnemis parvinigra* Blackm. Kaslo, B.C., (Cockle); Mt. McLean, B.C., August, (Hanham).
* *Litholomia napæa umbrifasciata* Blackm. Victoria, B.C., (Blackmore); Fraser Mills, B.C., (Marmont).
The above four insects described in Can. Ent., Vol. LV, Nos. 7 and 9.
3236. *Autographa rectangula* Kby. Victoria Beach, Man., July, (G. S. Brooks).

Geometridæ

* *Dysstroma mackieata* C. & S. Bilby, Alta., June, (D. Mackie).
* *Eupithecia bowmani* C. & S. Nordegg, Alta., July, (K. Bowman).
* *Eupithecia inclarata* C. & S. Alberta, (Swett).
* *Eupithecia divinula* C. & S. Alberta, July, (Swett).
* *Nepytia canosaria* form *fuscaria* B. & B. Meach Lake, Que., September.
* *Enypia venata* ab. *elaborata* C. & S. Wellington, B.C., July, (Taylor).
The above six insects described in the Lepidopterist, Vol. IV, Nos. 2, 3 and 4.

Pyralidæ

* *Crambus edmontellus* McD. Edmonton, Alta., July, (Bowman); N.W.T., 1907, (Fletcher); Calgary, Alta., (Bowman).

Pterophoridæ

* *Pterophorus evansi* McD. Trenton, Ont., (J. D. Evans); Aweme, Man., (Criddle).
* *Stenoptilia bowmani* McD. Nordegg, Alta., June, (McDunnough).
* *Oidæmatophorus lindseyi* McD. Aweme, Man., August, (Criddle).
The above species described in Can. Ent., Vol. LV, No. 4, 1923.

Olethreutidae

* *Exartema nigranum* Hein. Hamilton, Ont.
* *Exartema quebecensis* Hein. Quebec, (A. W. Hanham).
These two species described in Proc. Ent. Soc., Wash., Vol. XXV, Nov. 25, 1923.
* *Argyroploce dextrana* McD. Ottawa, Ont., July, (Young); Calgary, Alta., (Wolley-Dod); Edmonton, Alta., (Bowman).
* *Argyroploce bowmanana* McD. Nordegg, Alta.; July, (Bowman).
Can. Ent., Vol. LV, No. 7, 1923.
* *Pammene felicitana* Hein. Montreal, Que., and St. Hilaire, Que., (A. F. Winn).
Proc. Ent. Soc., Wash., Vol. XXV, No. 5, 1923.
* *Eucosma metariana* Hein. Victoria, B.C., July, (Blackmore).
* *Eucosma palabundana* Hein. Aweme, Man., July, (Criddle); Regina, Sask., (Willing).
* *Thiodia influana* Hein. Avenue, Man., July, (Criddle); Regina, Sask., (Willing).
* *Thiodia sororiana* Hein. Aweme, Man., September, (Criddle).
* *Thiodia misturana* Hein. Oxbow, Sask., (F. Knab); Aweme, Man., (Criddle).
* *Thiodia fertoriana* Hein. Goldstream, B.C.
* *Thiodia modicellana* Hein. Aweme, Man., July, (Criddle).

* *Thiodia festivana* Hein. Aweme, Man., June, (Criddle).
* *Gypsonoma substitutionis* Hein. Aweme, Man., July, (Criddle).
* *Epinotia digitana* Hein. Kaslo, B.C. (H. G. Dyar).
* *Epinotia bicardana* Hein. Aweme, Man., March, (Criddle).
* *Epinotia meritana* Hein. Victoria, B.C., July, (W. R. Carter).
* *Epinotia vagana* Hein. Victoria, B.C., (Blackmore); Duncan, B.C., (Hanham).
* *Epiblema periculosana* Hein. Mt. McLean, B.C., August, (Hanham).
* *Ancylis carbonana* Hein. White River, Ont.
These species described in Rev. N. A. Moths of the Subfamily Eucosminæ of the Family Olethreutidae. Bull. 123, U.S. Nat. Mus.
* *Homona negundana* McD. Aweme, Man., and Winnipeg, Man., (Criddle).
* *Cacœcia eleagnana* McD. Aweme, Man., July, (Criddle).
* *Cacœcia myricana* McD. Algonquin Park, Ont., July, (McDunnough).
* *Cacœcia columbiana* McD. Salmon Arm, B.C., July, (W. R. Buckell).
* *Tortrix alberta* McD. Nordegg, Alta., August, (McDunnough).
* *Tortrix trentonana* McD. Trenton, Ont., (Evans).
* *Tortrix flavidana* McD. Aweme, Man., July, (Criddle).
These six species described in Can. Ent., Vol. LV, No. 7, 1923.

Coleoptera

(Arranged according to Leng's Catalogue of Coleoptera, 1920)

Carabidæ
169b *Carabus tædatus candicus* Roes. Medicine Hat, Alta., March, (Carr).
222 *Elaphrus clairvillei* Kby. Medicine Hat, Alta., (Carr).
284 *Nebria obtusa* Lec. Medicine Hat, Alta., Sept., (Carr).
416 *Bembidion carinula* Chd. Cobalt Lake, Labr., (Waugh).
431 *Bembidion bifossolatum* Lec. Medicine Hat, Alta., April, (Carr).
460 *Bembidion funereum* Lec. Peachland, B.C., August, (Wallis).
581 *Bembidion consanguineum* Hayw. Peachland, B.C., July, (Wallis).
732 *Bembidion æneicolle* Lec. North of Kisbey, Sask., July, (Criddle).
741 *Bembidion dubitans* Lec. Peachland, B.C., July, (Wallis).
902b *Patrobus septentrionis lecontei* Chd. Pelican Lake, Man., July, (Criddle).
1522 *Platynus viridis* Lec. Victoria Beach and Winnipeg, Man., (Wallis and Roberts).
1543 *Platynus propinquus* G. & H. Darlingford, Man., August, (Criddle).
1650 *Lebia divisa* Lec. Cassils, Alta., (W. Carter); Medicine Hat, April, (Carr).
1821 *Chlœnius tricolor* Dej. Medicine Hat, Alta., May, (Carr).
1860 *Brachyloleus lethophilus* Say. Medicine Hat, Alta., (Carr).
2218 *Stenolophus ochropezus* Say. Darlingford, Man., August, (Criddle).

Amphizoidæ
2280 *Amphizoa insolens* Lec. Spious Creek, B.C., May, (R. Hopping).

Omophronidæ
2287 *Omophron tessellatum* Say. Medicine Hat., Alta., (Carr).

Haliplidæ
2324 *Peltodytes tortulosus* Robts. East Ont., (Evans).

Dytiscidæ
Laccophilus inconspicuus Fall. Medicine Hat, Alta., (Carr).
Cœlambus lumidiventris Fall. Medicine Hat, Alta., (Carr); Vernon, B.C., (Hopping).
2405 *Cœlambus farctus* Lec. Winnipeg, Man., not quite typical, (Wallis).
Cœlambus compar Fall. Aweme North, July, new to Canada, (Wallis).
2410 *Cœlambus lutescens* Lec. Cawston, B.C., July, (Metcalfe).
Cœlambus canadensis Fall. Medicine Hat, Alta., March, (Carr).
2412 *Cœlambus patruelis* Lec. Medicine Hat, Alta., March, (Carr).
2414 *Cœlambus sellatus* Lec. Medicine Hat, Alta., April, (Carr).
2421 *Cœlambus unguicularis* Cr. Medicine Hat, Alta., September, (Carr).
* *Hydroporus pangus* Fall. Cochrane, Ont., (Notman); Bay of Islands, Newfoundland, (Sherman); Aweme, Man., (Wallis).
* *Hydroporus planiusculus* Fall. Aweme, Man., (Wallis); Peachland, B.C., (Wallis).
* *Hydroporus pacificus* Fall. Massett, Queen Charlotte Island, B.C., (Wickham); Metlaktla, B.C., (Keen).
* *Hydroporus sinuatipes* Fall. Fraser Valley, B.C., and Ben Accord, B.C., (Sherman).
* *Hydroporus columbianus* Fall. Golden, B.C., (Sherman); Kamloops, (Wickham); Aweme, Man., (Wallis).
* *Hydroporus similaris* Fall. Fraser Valley, B.C., (Sherman).
* *Hydroporus badiellus* Fall. Bay of Islands, Newfoundland, (Sherman); Mile 214 to 332 H.B. Railway, Man., (Wallis).
* *Hydroporus polaris* Fall. Bernard Harbour, N.W.T., (F. Johansen).
The above species described in "A Revision of N.A. species of *Hydroporus* and *Agaporus*," 1923.

2551 *Agabus punctulatus* Aube. Medicine Hat, Alta., (Carr).
2610 *Coptotomus interrogatus* Fab. Medicine Hat, Alta., September, (Carr).

Hydrophilidæ
2784 *Barosus striatus* Say. Medicine Hat, Alta., (Carr).
2792 *Dibolocelus ovalis* Ziegl. Lethbridge, Alta., September, (Seamans).
2802 *Hydrobius fuscipes* L. Medicine Hat, Alta., (Carr).
2876 *Cercyon prætextus* Say. Peachland, B.C., (Wallis).
2888 *Cercyon tristis* Ill. Peachland, B.C., (Wallis).

Silphidæ
3001 *Anisotoma punctatostriata* Kby. Winnipeg, Man., (Wallis).

Orthoperidæ
3266 *Sacium lunatum* Lec. Aweme, Man., May, (R. M. White).

Scaphidiidæ
6489 *Scaphisoma convexum* Say. Victoria Beach, Man., June, (Wallis).

Hesteridæ
6860 *Saprinus cribum* Csy. Melita and Aweme, Man., May, (Criddle).

Melyridæ
7203 *Collops hirtellus* Lec. Medicine Hat, Alta., (Carr).
7227 *Collops quadrimaculatus* Fab. Caradoc, Ont., June, (A. A. Wood).

Cupesidæ
7746 *Priæma serrata* Lec. Creston, B.C., July, (C. S. Lallamand).

Mordellidæ
7927 *Mordellestena æmula* Lec. Ashdown, Man., June, (Criddle and White).

Meloidæ
8177 *Nemognatha dubia* Lec. Medicine Hat, Alta., June, (Carr).
8179 *Nemognatha piezota* Fab. Aweme, Man., July, (Criddle).

Elateridæ
9089 *Cardiophorus gagates* Er. Victoria Beach, Man., July, (Wallis).

Buprestidæ
9368 *Buprestis maculipennis* Gory. Victoria Beach, Man., July, (G. S. Brooks).
9369 *Buprestis subornata* Lec. Victoria Beach, Man., August, (Wallis).
9578 *Taphrocerus gracilis* Say. Medicine Hat, Alta., (Carr).

Heteroceridæ
9653 *Heterocerus auromicans* Kies. Victoria Beach, Man., July, (Wallis and Brooks).

Helodidæ
9708 *Scirtes tibialis* Guer. Onah and Aweme, Man., July, (White).

Dermestidæ
9728 *Dermestes tristis* Fall. Medicine Hat, Alta., March, (Carr).

Lathridiidæ
10664 *Cartodera filum* Aube. Ottawa, Ont., (A. Gibson).

Coccinellidæ
10981 *Brachyacantha albifrons* Say. Medicine Hat, Alta., (Carr).
Hippodamia minuta disjuncta Thum. Lethbridge, Alta., (W. Carter).
11181 *Coccinella perplexa* Muls. Hopedale, Labr., July, (Perrett).
11206 *Neomysia subvittata* Muls. Metashquin, S. Labr., (Waugh).
11225 *Exochomus septentrionis* Weise. Medicine Hat., Alta., April, (Carr).

Tenebrionidæ
11872 *Asidopsis polita* Say. Medicine Hat, Alta., (Carr).
12219 *Blapstinus oregonensis* Coq. Vernon, B.C., (Hopping).
12480 *Strongylum tenuicolle* Say. Treesbank, Man., July, (T. Criddle).

Ptinidæ
12613 *Ptinus fur* L. Medicine Hat, Alta., (Carr).

Scarabæidæ

13041 *Canthon praticola* Lec. Medicine Hat., Alta., (Carr).
13048 *Canthon lævis* Dau. Medicine Hat, Alta., (Carr).
13290 *Geotrupes balyi* Jek. Victoria Beach, Man., (C. G. Wright, B. Brooks, Brooks and Wallis).
13298 *Geotrupes semiopacus* Jek. Victoria Beach, Man., July, (Brooks and Wallis).
13409 *Diploloxia tristis* Kby. Aweme and Baldur, Man., (Wallis).
13993 *Cremastochilus bifoveatus* Van D. Peachland, B.C., (Wallis).
Recorded in error as *crinitus*.
14008 *Cremastochilus wheeleri* Lec. Aweme, Man., (White).

Cerambycidæ

14424 *Judolia sexmaculata* L. Hopedale, Labr., July, (Perrett).
14537 *Bellamira scalaris* Say. Aweme, Man., July, (Criddle).
14548 *Typocerus lugubris* Say. Hull, Que., (Curran).
14550 *Typocerus balteata* Horn. Medicine Hat, Alta., (Carr).
14619 *Merium proteus* Kby. Hopedale, Labrador, (Perrett).
14666a *Cyllene infusata* Lec. Lethbridge, Alta., (Seamans).
14672 *Hihopalus fulmans* Fab. Pelican Lake, Man., (Hill).
14679 *Xylotrechus colonus* Fab. Darlingford, Man., August, (G. E. White).
14830 *Crissidus pulchellus* Lec. Medicine Hat, Alta., (Carr).
14877 *Moncilema annulata* Say. Medicine Hat, Alta., (Carr).
15109 *Saperda obliqua* Say. Victoria Beach, Man., August, (C. E. Wright).
15110 *Saperda mutica* Say. Oliver, B.C., June, (Garrett).

Chrysomelidæ

15232 *Zeugophora puberula* Cr. Onah, Man., July, (Wallis).
15296 *Coscinoptera vittigera* Lec. Medicine Hat, Alta., (Carr).
15686½ *Chrysomela flavomarginata* Say. Medicine Hat, Alta., April, (Carr).
15759 *Monoxa sordida* Lec. Medicine Hat, Alta., (Carr).
15858 *Belepharida rhois* For. Medicine Hat, Alta., (Carr).
16068 *Phyllotreta robusta* Lec. Peachland, B.C., July, (Wallis).
16072 *Phyllotreta albionica* Lec. Thornhill, Man., (Wallis); Medicine Hat, Alta., (Carr).
16135 *Microrhopala cyanea* Say. Medicine Hat, Alta., (Carr).

Curculionidæ

16331 *Auletes uter* Lec. Winnipeg, Man., (Wallis).
16519 *Ophryastes tubercosus* Lec. Medicine Hat, Alta., (Carr).
16523 *Ophryastes sulcirostris* Say. Medicine Hat, Alta., (Carr).
16558 *Melamomphus alternatus* Horn. Medicine Hat, Alta., April, (Carr).
16641 *Strophosoma coryli* Fab. Agassiz, B.C., June, (R. Glendenning).
16782 *Lestronotus tessalatus* Czy. Medicine Hat, Alta., (Carr).
16784 *Lestronotus sulcirostris* Lec. Darlingford, Man., August, (Criddle).
16810 *Hyperodes ulkei* Dietz. Medicine Hat, Alta., (Carr).
17376 *Cleonus plumbeus* Lec. Medicine Hat, Alta., (Carr).
17377 *Cleonus crestatus* Lec. Medicine Hat, Alta., (Carr).
17391 *Cleonus frontalis* Lec. Medicine Hat, Alta., (Carr).

17398 *Cleonus modestus* Mann. Lethbridge, Alta., (Seamans).
17405 *Lexus rubellus* Rand. Medicine Hat, Alta., (Carr).
17439 *Lexus terminalis* Lec. Medicine Hat, Alta., (Carr).
17961 *Gersteckeria basalis* Lec. Medicine Hat, Alta., (Carr).
18005 *Thecesternus affinis* Lec. Medicine Hat, Alta., (Carr).
18098 *Sphenophorus ulkei* Horn. Winnipeg and Stoney Mountain, Man., August, (Wallis).

Scolytidæ

18252 *Dendroctonus borealis* Sw. Victoria Beach, Man., (Wallis).
18307 *Typodendron lutulæ* Sw. Aweme, Man., (Criddle); Onah, Man., (White).
18310 *Hylurgops borealis* Sw. Victoria Beach, Man., (Wallis).
18400 *Gnathotrichus materiarius* Fitch. Victoria Beach, Man., (Wallis).
18458 *Pityogenes knechteli* Sw. Victoria Beach, Man., May, (Wallis).
18479 *Ips parroti* Sw. Aweme, Man., July, (Wallis).
18488 *Pityokteines sparsus* Lec. Victoria Beach, Man., (Wallis).

Diptera

Species described as new in "The Canadian Entomologist" during 1923 are omitted from the "Record" owing to lack of space. The number given before the name of species refers to the page in Aldrich's "Catalogue" on which the name of the genus appears.

Psychodidæ

106 *Psychoda albitarsis* Banks. Hull, Que., June, (Curran).

Culicidæ

136 *Wyeomyia smithi* Coq. Aweme, Man., (Criddle and Robertson).

Mycetophilidæ

139 *Asindulum montanum* Roeder. Ft. Coulonge, Que., July, (Beaulne); Sudbury, Ont., (Evans); Aweme, Man., August, (Vroom).
145 *Exechia absoluta* John. Megantic, Que., June, (Curran).
146 *Mycetophila quatuornotata* Lw. Megantic, Que., June, (Curran).

Bombyliidæ

240 *Lepidophora ægeriiformis* Westw. Victoria Beach, Man., July, (G. S. Brooks).

Therevidæ

*246 *Psilocephala frontinalis* Cole. Maniwaki and Montreal, Que., (Beaulieu); Ottawa, Belleville, (Gibson); Jordan, Ont., (Curran); Toronto, (C. W. Johnson).
* *Psilocephala canadensis* Cole. Trenton, Ont., (Evans); Ottawa, Montfort, (Que.), (Johnson).
* *Psilocephala latifrons* Cole. Prince Edward Co., Ont., (Evans).
* *Tabuda borealis* Cole. Gull Lake, Sask., April, (T. N. Willing).
*247 *Thereva cinerascens* Cole. Savary Island, B.C., July, (R. S. Sherman).
* *Thereva cockerelli* Cole. Aweme, Man., June, (E. Criddle).
* *Thereva brunnea* Cole. Victoria, B.C., (Downes and Anderson); Vancouver, B.C., (Treherne).
* *Thereva nigripilosa* Cole. Victoria, B.C., (Downes); Cranbrook, B.C., (Garrett).

Apioceridæ

253 *Apiocera haruspex* O.S. Oliver, B.C., July, (Buckell, Garrett, Vroom).

Asilidæ

259 *Cyrtopogon vulneratus* Melan. Coniston, Ont., July, (H. S. Parish).
Psyche, Vol. XXX, Nos. 3-4, 1923.
Buckellia cyrtopogona Cole. Revelstoke Mt., B.C., Aug. 12, (Buckell). (Described as *Cophura;* follows *Cyrtopogon.* C.H.C.).
272 *Laphria ferox* Willist. Bathurst, N.B., July 26, (J. N. Knull).
Laphria janus McAt. Revelstoke Mt., B.C., Aug. 12, (Vroom).
274 *Proctacanthus occidentalis* Hine. Oliver, B.C., (Buckell, Vroom).
275 *Erax bicaudatus* Hine. Lethbridge, Alta., August, (Seamans); Oliver, B.C., September, (Garrett).
Erax zonatus Hine. Oliver, B.C., July, (Buckell, Vroom).
281–283 *Asilus nitidifacies* Hine. Moraine Lake, Alta., July, (McDunnough); Hopedale, Labr., August, (Perrett).
Asilus antimachus Walk. Taber, Alta., July, (Carter).
Asilus montanus Hine. Victoria, B.C., July, (Anden).

Dolichopodidæ

288 *Diaphorus snowii* V.D. Banff, Alta., August, (Garrett).
289 *Chrysotus discolor* Loew. Truro, N.S., July; Fort Coulonge, Que., July, (Beaulne); Orillia, Ont., August, (Curran); Aweme, Man., July, (Criddle, Robertson).
298 *Liancalus limbatus* V.D. Fort Churchill, B.C., Sept. 11, (Anderson).
291 *Argyra robusta* Johns. Ottawa, Ont., June, (Curran).
Argyra albicans Lw. Hull, Que., Ottawa and Orillia, Ont., June, July, (Curran).
Argyra calceata Loew. Orillia, Ont., July, (Curran).
291–292 *Rhaphium* (*Xiphandrium*) *dubium* V.D. Hull, Que., Ottawa, Ont., May, June, (Curran).
Rhaphium (*Xiphandrium*) *femoratum* V.D. Banff, Alta., May, June, August, (Garrett); Waterton, Alta., June, July, (McDunnough).
Rhaphium (*Porphyrops*) *crassipes* Mg. Megantic and Hull, Que., June, (Curran).
Rhaphium (*Porphyrops*) *rotundiceps* Loew. Hull, Que., June, (Curran).
Rhaphium (*Porphyrops*) *nudus* V.D. Hull, Que., Ottawa, Ont., June, July, (Curran).
Rhaphium (*Porphyrops*) *fascipes* Mg. Hull, Que., June, (Curran).
Rhaphium (*Porphyrops*) *melampus* Lw. Hull, Que., July, (Curran).
Rhaphium (*Porphyrops*) *signifer* O.S. Orillia, Ont., July, (Curran).
292 *Syntormon tricoloripes* Curran. Oliver, B.C., April, (Garrett); Hull, Que., and Ottawa, Ont., May, June, (Curran).
292 *Sympycnus cuprinus* Wheeler. Banff, Alta., Aug., (Garrett).
Sympycnus marcidas Wheeler. Banff, Alta., July, Aug., (Garrett).
293 *Neurigona albospinosa* V.D. Oliver, B.C., May, (Garrett).
Neurigona tridens V.D. Keremeos, B.C., June, (Garrett).
290 *Campsicnemus americana* V.D. Ottawa, Ont., Orillia, Ont., May, July, (Curran).
Campsicnemus degener Wheeler. Ottawa, Ont., Hull, Que., April, June, (Curran).

296 *Hydrophorus philombrius* Wheeler. Aweme, Man., September, (Criddle).
Hydrophorus altivagus Ald. Lethbridge, Alta., July, (Seamans).
Hydrophorus algens Wheeler. Banff, Alta., July to September, (Garrett).
Hydrophorus gratiosus Aldrich. Chin, Alta., May, (Carter, Seamans).
Hydrophorus amplectens Ald. Hemmingford, Que., June, (Curran).
Hydrophorus extrarius Ald. Ottawa, Ont., April, (Curran).
Hydrophorus æstuum Lw. Hemmingford, Que., June, (Curran); Aweme, Man., August, (Robertson); Lethbridge, Alta., June, (Seamans).
Hydrophorus chrysologus Walker. Ontario, Quebec, (Curran), common.
*298 *Dolichopus uliginosus* V.D., Nanaimo, B.C., June, (E. P. Van Duzee). Psyche, XXX, No. 2.
Dolichopus viridis V.D. Oliver, B.C., May, (Garrett).
Dolichopus nigricauda V.D. Osoyoos and Oliver, B.C., May, June, (Garrett).
Dolichopus burnesi V.D. Covey Hill, Que., June, (Curran).
Dolichopus conspectus V.D. Chin and Lethbridge, Alta., May, (Seamans); Osoyoos and Oliver, B.C., May, June, (Garrett).
Dolichopus gratus Loew. Hemmingford, and Hull, Que., June, (Curran).
Dolichopus calcaratus Ald. Covey Hill, Que., June, (Curran).
Dolichopus melanderi V.D. Osoyoos, B.C., May, (Garrett).
Dolichopus barbicauda V.D. Hemmingford and Covey Hill, Que., June, (Curran).
Dolichopus æqualis V.D. Megantic, Que., June, (Curran).
Dolichopus remipes Wahl. Orillia, Ont., July, Covey Hill and Hemmingford, Que., June, (Curran); Sandridge, Man., June, (Hunter and Cumming).
Dolichopus incongruus Wheeler. Orillia, Ont., July, (Curran).
Dolichopus laticornis Lw. Hull, Que., June, (Curran).
Dolichopus apheles Mel. & Br. Hull, Que., June, (Curran).
Dolichopus genualis V.D. Covey Hill, Que., Ottawa, Ont., June, (Curran).
Dolichopus trisetosus V.D. Covey Hill and Megantic, Que., June, (Curran).
Dolichopus comatus Loew. St. Cecile, Woburn and Covey Hill, Que., June, (Curran).
Dolichopus virga Coq. Covey Hill, Que., June, (Curran).
Dolichopus flaviciliatus V.D. Sudbury, Ont., (Evans).
Dolichopus renidescens Mel. & Br. Oliver, and Osoyoos, B.C., May, June, (Garrett).
Dolichopus porphyrops V.D. Hull, Que., June, (Curran).
Dolichopus plumitarsus Fall. Ottawa, Ont., June, (Curran).
Dolichopus fulvipes Loew. Covey Hill, Que., June, (Curran).
Dolichopus luteipennis Loew. Orillia and Seabright, Ont., July, (Curran).
Dolichopus wheeleri Mel. & Br. Covey Hill, Que., June, (Curran).
Dolichopus compactus V.D. Oliver, B.C., June, (Garrett).
Dolichopus æratus V.D. Oliver, B.C., June, (Garrett).
Dolichopus amphericus Mel. & Br. Waterton, Alta., June, (McDunnough).
Dolichopus penicilatus V.D. Strathclair, Man., Aug., (Robertson).
Dolichopus chrysostoma Loew. Covey Hill, Que., June, (Curran).
Dolichopus harbecki V.D. Covey Hill, Que., June, (Curran).
Dolichopus versutus V.D. Hull, Que., June, (Curran).
Dolichopus sicarius V.D. Hemmingford and Hull, Que., June, July, (Curran).
Dolichopus scoparius Loew. Megantic, Hull, Covey Hill and Hemmingford, Que., June, July, (Curran).
Dolichopus plumosus Ald. Waterton, Alta., July, (McDunnough, Seamans).
305 *Gymnopternus humilis* Loew. Quebec, common, (Curran).
Gymnopternus phyllophorus Loew. Ontario, Quebec, June to August, (Curran).
Gymnopternus lunifer Loew. Hull, Que., June, (Curran).
Gymnopternus chalcochrus Loew. Ontario, Quebec, June to August, (Curran).
*306 *Hercostmus costalis* V.D. Toronto, Ont., July; Port Credit, Ont., Ridgway, Ont., (Van Duzee).
Psyche, XXX, No. 2.
Hercostomus unicolor Loew. Waterton, Alta., July, (Seamans); Aweme, Man., July, (Robertson).
307 *Tachytrechus vorax* Loew. Hemmingford, Que., Orillia, Ont., June to August, (Curran).
Tachytrechus binodatus Loew. Hemmingford, Que., Orillia, Ont., June to August, (Curran).
Tachytrechus mœchus Loew. Hemmingford, Que., Orillia, Ont., June, July, (Curran).
Tachytrechus sanus O.S. Waterton, Alta., June, July, (McDunnough, Seamans).
Tachytrechus bipunctatus Greene. Waterton, Alta., July, (McDunnough).
308 *Pelastoneurus ramosus* V.D. Hull, Que., September, (Curran).

Platypezidæ
*340 *Agathomyia canadensis* Johnson. Norway Point, Lake of Bays, Ont., August, (J. McDunnough).
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Syrphidæ
347 *Chrysotoxum coloradensis* Greene. Kelowna, B.C., July 29, (Buckell).
Chrysotoxum ventricosum Lw. Fort Wrigley, N.W.T., (C. H. Crickmay).

351 *Cartosyrphus canadensis* Shannon. (Ins. Insc. Mens., X, 133, 1922); B.C.; Waterton Lakes Park, Alta., June 12, (J. McDunnough); Hedley, B.C., Aug. 29, (Garrett)· (See *Chilosia*).
Cartosyrphus townsendi Hunter. Hedley, B.C., August, (Garrett).
Chilosia hoodiana Bigot. (*petulca* Willist.) Hedley, B.C., August, (Garrett).
363 *Syrphus attenuatus* Hine. Mt. Revelstoke, B.C., Aug. 12, (Vroom, Buckell); Aspen Grove, B.C., Sept. 5, (Buckell).
363 *Epistrophe* (*Syrphus*) *grossulariæ melanis* Curran. Revelstoke Mt., B.C., Aug. 12, (Vroom); Aspen Grove, B.C., Sept. 5, (Buckell).
369 *Epistrophe* (*Xanthogramma*) *habilis* Snow. Revelstoke Mt., B.C., August, (Buckell). (Previously known only from the type which lacks the head, described from New Mexico. C.H.C.).
Epistrophe arctica Zett. Nain, Labr., June 15, 1922, (F. W. Waugh).
Phytomyptera (*Dichætoneura*) *leucoptera* Johns. Kentville, N.S., August 4, 1917, (Brittain); Ottawa, August 18, 1908, (Host for all specimens; *Cacæcia cerasivorana* Fitch.)

Tachinidæ
439 *Hyalomyodes dorsalis* Coq. Oliver, B.C., May 26, (Garrett).
444 *Heteropterina nasoni* Coq. Oliver, B.C., July, (Buckell, Vroom).
453 *Ernestia arcuata* Tothill. Macdiarmid, Ont., June 11, 1922, (N. K. Bigelow). (Panzeria of Aldrich Cat.)
Ernestia sulcocarina Tothill. Macdiarmid, Ont., June 17 to 27, 1922; Port Sydney, Ont., July, 1919.
467 *Acemyia tibialis* Coq. Douglas Lake, B.C., May 29, (Buckell).
472 *Arctophyto gillettii* Towns. Keremeos, B.C., June, (Garrett).
Arctophyto wickmani Towns. Banff, Alta., August, (Garrett).
(Note—A specimen in the Canadian National Collection, Ottawa, determined as *A. gilletti* by Coq. (Laggan, Alta.), is this species. C.H.C.)
475 *Metachæta atra* Coq. Oliver, B.C., May 10, (Buckell).
476 *Hilarella siphonina* Zett. Nicola, B.C., Aug. 1, (Buckell).

Sarcophagidæ
510 *Sarcophaga cooleyi* Parker. Oliver, B.C., Aug. 22, (Buckell); reared from *Melanoplus packardi*.
Sarcophaga hunteri Hgh. Lethbridge, Alta., July, (Seamans).

Anthomyidæ
540 *Phaonia deleta* Stein. Teulon, Man., (A. J. Hunter). (*Hyetodesia* of Aldrich Catalogue).
Phaonia basalis Mall. Winnipeg, Man., July, 1920, (A. J. Hunter).
Phaonia solitaria Stein. Teulon, Man., May, June, (Hunter).
Helina uniseta Stein. Hemmingford, Que., June, (Curran); Teulon, Man., May, (Hunter).
Helina nasoni Mall. Teulon, Man., June, July, (Hunter).
Helina tuberculata Mall. Hopedale, Labr., June, (Perrett); Nain, Labr., June, July, (Waugh).
Helina nigricans Stein. Oliver, B.C., May, (Buckell).
Helina linearis Mall. Teulon, August, (Hunter).
Myiospila meditabunda Mall. Nicola, B.C., (Buckell).

Lonchæidæ
*581 *Lonchæa atritarsis* Mall. Kaslo, B.C., (A. N. Caudell).
Proc. Ent. Soc. Wash., Vol. XXV, No. 2, 1923.

Trypetidæ
* *Eurosta solidaginis fascipennis* Curr. Ottawa, Ont., June, (J. Fletcher).
Ent. News, Vol. XXXIV, No. 10, 1923.
Eurosta solidaginis subfasciatus Curr. Vernon, B.C., March, (E. R. Buckell).
Ent. News, XXXIV, No. 10.

Hymenoptera

Xyelidæ
* *Neoxyela alberta* Curran. Banff, Alta., May and June, (C.B.D. Garrett). Can. Ent., Vol. XLV, 20, 1923.

Tenthredinidæ
Empria cava MacG. Edmonton, Alta., (F. S. Carr).
* *Empria cadurca* MacG. Edmonton, Alta., (F. S. Carr).
* *Dolerus nuntius* MacG. Edmonton, Alta., (F. S. Carr).
* *Dolerus nutricus* MacG. Edmonton, Alta., (F. S. Carr).
* *Dolerus nummatus* MacG. Edmonton, Alta., (F. S. Carr).

* *Dolerus nudinus* MacG. Edmonton, Alta., (F. S. Carr).
* *Dolerus nummarius* MacG. Edmonton, Alta., (F. S. Carr).
* *Dolerus nicæus* MacG. Chilliwack, B.C., (A. L. Lovett).
Pachyprotasis rapæ L. MacG. Edmonton, Alta., (F. S. Carr).
* *Rhogogastera ruga* MacG. Edmonton, Alta., (F. S. Carr).
(*Tenthredopsis*) *Rhogogastera evansi* Harr. Edmonton, Alta., (F. S. Carr).
* *Tenthredo rutila* MacG. Edmonton, Alta., (F. S. Carr).
Tenthredo erythromera Prov. Edmonton, Alta., (F. S. Carr).
Tenthredo nigrisoma Harr. Edmonton, Alta., (F. S. Carr).
Tenthredo scævola Cress. Edmonton, Alta., (F. S. Carr).
* *Tenthredo rumina* MacG. Edmonton, Alta., (F. S. Carr).
Abia kennicotti Nort. Edmonton, Alta., (F. S. Carr).
* *Trichiosoma confundum* MacG. Edmonton, Alta., (F. S. Carr).
Cimbex violacea Le P. Edmonton, Alta., (F. S. Carr).
* *Pachynematus allegatus* MacG. Edmonton, Alta., (F.S. Carr).
* *Pteronidea egnatia* MacG. Edmonton, Alta., (F. S. Carr).
* *Pteronidea egeria* MacG. Edmonton, Alta., (F. S. Carr).
* *Pteronidea elelea* MacG. Edmonton, Alta., (F. S. Carr).
* *Blennocampa amara* MacG. Edmonton, Alta., (F. S. Carr).
The above Tenthredinidæ are treated in Can. Ent., Vol. XLV, 1923.

Vipionidæ

Apanteles (*Protapanteles*) *læviceps* Ashm. Alta., (E. H. Strickland).

Braconidæ

Meteorus communis Cress. Que., Ont., B.C., (C. F. W. Muesebeck).
Meteorus hyphantriæ Riley. Que., N.S., (C. F. W. Muesebeck).
Meteorus proximus Cress. Salines, Ont., Qaubamic, Ont., (H. S. Parish).
Meteorus vulgaris Cress. Ont., N.S., Alta., B.C., (C. F. W. Muesebeck).
Meteorus niveitarsis Cress. Ottawa, Ont., (C. F. W. Meusebeck).
* *Meteorus tibialis* Mues. Montreal, Que., May, 1902, (C. F. W. Muesebeck).
Meteorus versicolor Wesm. N.B., N.S., (C. F. W. Muesebeck).
* *Meteorus autographæ* Mues. Canada, (C. F. W. Muesebeck).
The above Braconidæ are treated in Proc. U.S. Nat. Mus., Vol. LXIII, 1923.

Halictidae

Halictus viridatus Lov. Smith Cove, N.S., May 8, 1916; Ottawa, Ont., June 27, 1921, (J. H. McDunnough); St. John, N.B., Aug. 11, 1901, (A. G. Leavitt).
Halictus hortensis Lov. Kazubazua, Aug. 4, 1914, (F. W. L. Sladen).
Halictus versans Lov. Kentville, N.S., July 30, 1914, (F. W. L. Sladen).
Halictus sparsus Rob. Aylmer, Que., July 10, 1922, (C. B. Hutchings); Ottawa, Ont., Sept. 16, 1913, (F. W. L. Sladen); Toronto, April, May, July, Aug., Sept.
Halictus vierecki Cwfd. Toronto, May, June, Aug., Sept.
Halictus cressoni Rob. Smith Cove, N.S., May; Ile de Montreal, June, (Beaulieu); Co. Hastings, Ont., July, Sept., (Evans).
Halictus atriventris Cwfd. Vernon, B.C., May, Mara, B.C., May, (R. C. Treherne); Brent, Alta., Aug., (E. H. Strickland).
Halictus nymphæarum Rob. Ottawa, Toronto, June, July, Sept., Oct.; Hemmingford, Que., Aug., (J. I. Beaulne); Co. Prince Edward, Ont., Oct., (Evans).
Halictus ovaliceps Ckll. Penticton, June, (E. R. Buckell); Vernon, B.C., June, (E. P. Venables).
Halictus pectoralis Sm. Lanoraie, Que., June, (Beaulne); Toronto, June, Aug.; Ottawa, Sept., (F. W. L. Sladen).
Halictus pectoraloides Ckll. Aweme, Man., Aug., (N. Criddle); Penticton, B.C., May, June, (E. R. Buckell).
Halictus cooleyi Cwfd. Lethbridge, Alta., June, (Sladen); Crescent, B.C., August, (Sladen); Victoria, B.C., July, (J. B. Wallis); Vancouver, B.C., August, (Sladen).
Halictus arcuatus Rob. Smith Cove, N.S., May; Ottawa, April, (Sladen); Ile de Montreal, May, June, (Beaulieu).
Halictus cordleyi Cwfd. Lethbridge, July, (J. B. Wallis); Banff, Sept., (C. B. Garrett); Cranbrook, B.C., (C. B. Garrett).
Halictus niger Vier. Aweme, Man., July, (Sladen); Chilcotin, B.C., June, (E. R. Buckell).
Halictus quadrimaculatus Rob. Smith Cove, N.S., July, (A. Gibson); Aylmer, Que., June, (Hutchings); Ile de Montreal, June, (Beaulieu); Trenton, Ont., June, (Evans).
Halictus foxii Rob. Sully, Que., June, Quebec City, Aug., (Sladen); Ottawa, June, (Sladen); Medicine Hat, May, (Sladen); Melfort, Sask., July, (Sladen); Aweme, Man., May, (N. Criddle); Kaslo, May, Lytton, April, (W. B. Anderson); Nelson, April, Vernon, May, (R. C. Treherne).
Halictus similis Sm. Weymouth, N.S., June, Aug.; Ottawa, June, Oct., (Sladen); Ile de Montreal, July, August, (Beaulieu); Cheticamp, C.B.I., Aug., (Johansen).

Halictus olympiæ Ckll. Royal Oak, B.C., June, (W. Downes); Victoria, B.C., May, June, (R. C. Treherne).
Halictus sisymbrii Ckll. Vernon, B.C., June, July, August, (N. L. Cutler); Penticton, May, (E. R. Buckell); Royal Oak, Aug., Sept., (W. Downes).
Halictus forbesi Rob. Kentville, N.S., June, (Sladen); Aylmer, Sept., (Hutchings); St. John, N.B., Sept., (A. G. Leavitt); Ottawa, Sept. and Oct., (Sladen).
Halictus pura Say. Aylmer, Que., May, July, (Hutchings); Grimsby, Ont., June.
Halictus viridissimus Vier. Toronto, Ont., June; Grimsby, Ont., Aug.
Halictus radiatus Say. Ottawa, Ont., July, (Sladen); Toronto, Ont., Aug.; Treesbank Sept., (C. G. Hewitt); Penticton, April, (E. R. Buckell).
Halictus splendens Le P. Caradoc, Aug., (H. F. Hudson); Aweme, Man., May, July, August, (N. Criddle); Medicine Hat, July, (Sladen).
Halictus virescens Fabr. Trenton, Ont., June, (Evans); Lethbridge, July, (Sladen); Okanagan, B.C., May, (E. R. Buckell).
Halictus ligatus Say. Trenton, Ont., Sept., (Evans); Chatham, Ont., August, (Sladen); Lethbridge, Alta., June, July, (Sladen); Jasper Park, Alta., Sept., (Johansen); Agassiz, B.C., August, (Glendenning).
Halictus farinosus Sm. Lillooet, B.C., July; Penticton, August, (Sladen).
Sphecodes persimilis Lov. & Ckll. Ottawa, Ont., May, June, (F. W. L. Sladen); Trenton, Ont., June, (Evans); Hull, Que., April, (F. W. L. Sladen); Toronto, Ont., June, (Harrington); Sandridge, Teulon, Man., June, July, (F. W. L. Sladen); Grimsby, Ont., May, (Harrington).
Sphecodes obscurans Lov. & Ckll. St. Stephens, N.B., July, (R. C. Treherne); Ottawa, Ont., June, (F. W. L. Sladen); Blenheim, Ont., May, (Harrington); Montreal, Que., May, (Beaulieu); Smith's Cove, N.S., July, (A. Gibson); June, (Evans); Teulon, Man., June, (F. W. L. Sladen).
Sphecodes lautus Lov. & Ckll. Ottawa, Can., September, (F. W. L. Sladen); Ft. Coulonge, Que., (J. I. Beaulne); Hastings, Ont., September, (Evans).

Andrenidæ

Andrena milwaukeensis Graen. Kentville, N.S., May, June, (Gorham); Chelsea, Que., May, June; Megantic, Que., June, (Curran); St. John, N.B., June; Toronto.
Andrena perarmata Ckll. Penticton, B.C., April, (E. R. Buckell); Summerland, B.C., April, (Sladen); Chilcotin, B.C., May, (Buckell).
Andrena pyrrhacita Ckll. Hanceville, April, Chilcotin, April, May, (E. R. Buckell); Kamloops, B.C., April, (W. B. Anderson).
Andrena clarkella Kby. (= *bicolor* Prov.). Chelsea, Que., April, Sudbury, Ont., Ottawa, April, (Sladen); Aweme, Man., May, (Criddle); Edmonton, Alta., June, July, (Carr).
Andrena dunningi Ckll. Grimsby, Ont., June; Ottawa, May, June, (Sladen); Ironsides, Que., April, (Sladen); Bird's Hill, Man., June, (Wallis).
Andrena transnigra Vier. Banff, Alta., May, June, (Sladen); Armstrong, Penticton, B.C., May, (E. R. Buckell); Cranbrook, May, (Garrett).
Andrena perindotata Vier. Crescent, B.C., August, (F. W. L. Sladen).
Andrena carliniformis Vier & Ckll. Okanagan Falls, B.C., June, (E. R. Buckell); Victoria, B.C., (G. W. Taylor); Agassiz, B.C., May, (F. W. L. Sladen); June, (R. Glendenning); Kamloops, B.C., May, (E. R. Buckell).
Andrena errans Sm. Aspen Grove, B.C., May, (Vroom); Chilcotin, B.C., May, (E. R. Buckell); Agassiz, May, (Sladen); Victoria.
Andrena saccata Vier. Royal Oak, B.C., May. (R. C. Treherne); Sidney, B.C., May, (F. W. L. Sladen).
Andrena regularis Mall. Annapolis, Royal N.S., April, (Sanders); Weymouth, N.S., May; Kingsmere, Que., May, (Sladen); White River, Ont., June, (Sladen).
Andrena vicina solidula Vier. Melita, Man., July, (N. Criddle); Lethbridge, Alta., July, (H. L. Seamans); Armstrong, B.C., June, (N. L. Luther); Sahtlam, B.C., May, (E. M. Anderson).
Andrena advarians Vier. Golden, B.C., May, (Sladen); Victoria, April, (Anderson).
Andrena washingtoni Ckll. Sidney, B.C., May, (Sladen).
Andrena pertarda Ckll. Meach Lake, Que., Sept., (Hewitt); Medicine Hat, August, (Sladen); Penticton, June, (Buckell).
Andrena azygos Vier. Lillooet, B.C., May, (W. B. Anderson).
Andrena frigida Sm. Ottawa, April, (Sladen); White River, June, (Sladen).
Andrena hitei Ckll. Teulon, Man., May and June, (A. J. Hunter), (F. W. L. Sladen); Sandridge, Man., June, (F. W. L. Sladen).
Andrena moesta Sm. Ottawa, Ont., April, May, (Sladen); Aweme, Man., May, (Criddle); Edmonton, April, (Carr); Banff, May; Penticton, April, (Treherne).
Andrena thaspii Graen. Ottawa, June, (Sladen); Spruce Bank, Nfld., July, (Walker); Kentville, N.S., July, (Sladen); Lethbridge, June, (Sladen); Rosthern, Sask., July, Sladen).
Andrena wilkella Kby. Fredericton, N.B., August, (Sladen); Fort Coulonge, Que., June, (Beaulne); Ottawa, June, (Sladen); Saanich, B.C., May, (J. Wilson).
Andrena perplexa Sm. Blenheim, Ont., May.

Andrena prunorum Ckll. Glenboro, June, (S. Criddle); Medicine Hat, May, July, Sladen); Lethbridge, July, (Sladen).
Andrena kincaidi Ckll. Penticton, B.C., April, (Buckell).
Andrena hilaris Sm. Trenton, Ont., May, (Evans).
Andrena commoda Sm. Kazubazua, Que., July, (Sladen); Ottawa, June, (Sladen).
Andrena cressoni Rob. Fort Coulonge, Que., June, (Beaulne); Trenton, Ont., May, (Evans); Agassiz, May, (Sladen).
Andrena trumani Vier. & Ckll. var. Agassiz, B.C., May, (Sladen).
Andrena lupinorum Ckll. Calgary, July, (Sladen).
Andrena pruni Rob. Ironsides, Que., April, 1915, (Sladen); Ile de Montreal, May, 1906, (Beaulieu).
Andrena erythrogaster Ashm. Toronto, April, June; Grimsby, Ont., June, (Brimley); Fort McMurray, May, (F. Harper); Aweme, May, (White); Stony Mountain, Man., June, (Wallis).
Andrena piperi Vier. Okanagan Falls, B.C., June, (Buckell).
Andrena subtilis Sm. Fairview, B.C., May, (Buckell); Cranbrook, B.C., May, (Garrett); Vernon, B.C., May, (Venables).
Andrena novæangliæ Vier. Co. Hastings, Ont., July, (Evans); Ironsides, Que., May, (L. M. Stohr).
Andrena peckhami Ckll. Toronto, June; Rosthern, Sask., July, (Sladen); Lethbridge, Alta., June, (Sladen).
Andrena atala Vier. Invermere, B.C., June, (Sladen).
Andrena geranii Rob. Toronto, June.
Andrena auricoma Sm. Kazubazua, Que., August, (Sladen); Medicine Hat, August, (Sladen); Victoria, B.C., April, May, (Treherne).
Andrena runcinatæ Ckll. Boucker, Sask., Medicine Hat, July, (Sladen); Lethbridge, July, August, (Sladen).
Andrena candida Sm. Royal Oak, B.C., April, (Treherne).
Andrena scurra Vier. Lethbridge, May, June, (H. L. Seamans); Invermere, May, (Sladen); Penticton, June, (Buckell).
Andrena salictaria Rob. Ottawa, April, May, (Sladen); Aweme, Man., April, May, (Criddle); Cranbrook, B.C., May, (Garrett).
Andrena nigrocærulea Ckll. Vernon, B.C., May, (Ruhmann); Lillooet, June, (Anderson); Royal Oak, April, (Treherne).
Andrena neurona Vier. Duncan, B.C., April, (W. B. Anderson); Penticton, B.C., May, (E. R. Buckell).
Andrena longihirtiscopa Vier. Royal Oak, B.C., April, May, (Treherne); Agassiz, May, (Sladen); Victoria, April, (Treherne).
Andrena colletina Ckll. Penticton, B.C., September, (Buckell); Cranbrook, B.C., September, (Garrett).
Andrena lata Vier. Ottawa, Ont., June, (Sladen); Aylmer, Que., July, on *Ceanothus americanus*, (R. Oxburn, H. L. Viereck); Trenton, Ont., May, (Evans); Toronto, Ont., June, (Harrington).
Andrena astragali V. & C. Penticton, June, (Buckell); Oliver, May, (Buckell).
Andrena tridens Rob. Ottawa.
Andrena mandibularis Rob. Strathroy, Ont., June, (H. G. Crawford).
Andrena accepta Rob. Medicine Hat, Alta., July, (F. W. L. Sladen).
Andrena erigeniæ Rob. Covey Hill, Que., May, (C. E. Petch); Toronto, Ont., May, (Harrington).
Andrena pallidifovea Vier. Penticton, B.C., May, (Buckell); Vernon, April.
Andrena erigenoides Vier. Victoria, B.C., April, May, June, (Treherne).
Andrena g. maculati Rob. Toronto, May, June.
Andrena asteris Rob. St. John, N.B., September, (A. G. Leavitt); Toronto, August, September; Grimsby, Ont., August, (Brimley).
Andrena haynesi V. & C. Medicine Hat, August, (Sladen).
Andrena aliciæ Rob. Toronto, August.
Andrena solidaginis Rob. Toronto, August; Aweme, September, (Criddle).
Andrena mendosa Vier. Penticton, B.C., May, (E. R. Buckell).
Andrena wellesleyana Rob. Aweme, Man., April, May, (Criddle).
Andrena nasoni Rob. Hull, Que., April, (Sladen); Ottawa, May, (Sladen); Toronto, June, (Sladen).
Andrena angustitarsata Vier. Victoria, May, (Treherne); Victoria, May, (A. E. Cameron); var. Lillooet, May, (E. M. Anderson).
Andrena fragilis Sm. St. John, N.B., June, (Leavitt); Ironside, Que., May, (Sladen); Toronto, June, (E. M. Walker); Aweme, Man., May, (Criddle).
Andrena barbarica Vier. Toronto, June, (E. M. Walker).
Andrena integra Sm. Hemmingford, Que., June, (Beaulne); Toronto, July, August; Ottawa, June, July, (Sladen).
Andrena bradleyi Vier. Kazubazua, Que., June, (Sladen); Aylmer, Que., May, (Sladen); Mer Bleue, Que., May, (A. W. Richardson).
Andrena carolina Vier. Halifax, N.S., June, (J. Perrin); St. John, N.B., May, (Leavitt); Aylmer, Que., May, (Sladen); Ottawa, June, (Sladen); White River, June, (Sladen).

Andrena wheeleri Graen. Fort William, Ont., June, (Sladen); Aweme, July, (Criddle); Toronto, June.
Andrena claytoniæ Rob. Kazubazua, Que., July, (Sladen); Ottawa, April, (Sladen).
Andrena alleghaniensis Vier. Port Sydney, Ont., (N. K. Bigelow).
Andrena cratægi Rob. St. John, N.B., May, July, (Leavitt); Hemmingford, Que., June, (Petch); Ottawa, May, (Sladen); Vernon, May, (Treherne).
Andrena sigmundi Ckll. Aylmer, Que., May, (Sladen); Ottawa, May, (Sladen).
Andrena forbesi Rob. Toronto, June.
Andrena miranda Sm. (= *hippotes* Rob.) Charlottetown, P.E.I., July, (F. W. L. Sladen); Trenton, Ont., May, (Evans); Truro, N.S., (Brittain).
Andrena mariæ Rob. Toronto, June; Aweme, Man., May, April, (C. Criddle).
Andrena obscura Rob. Ottawa; Toronto, July.
Andrena striatifrons Ckll. Medicine Hat, April, (Sladen); Penticton, April, (Buckell); Victoria, March, (Sladen).
Andrena swenki Vier. Golden, B.C., May, (Sladen).
Andrena cleodora Vier. Penticton, June, (Buckell); Kaslo, June.
Andrena grandior Ckll. Port Sydney, Ont., July, (N. K. Bigelow).
Andrena grandior multiplicatiformis Vier. Ottawa, Ont., June, (J. I. Beaulne).

Dufoureidæ

Halictoides oryx Vier. Salmon Arm, B.C., June, (Sladen); Naramata, B.C., June, (Buckell).

Panurgidæ

Perdita perpallida Ckll. Medicine Hat, July, August, (Sladen).
Perdita stottleri flavida Swenk & Ckll. Lethbridge, July, (Sladen).
Perdita affinis Cress. Medicine Hat, August, (Sladen).
Perdita bruneri Ckll. Medicine Hat, August, (Sladen); Aweme, Man., (Criddle).
Perdita swenki Cwfd. Medicine Hat, August, (Sladen).

Nomadidæ

Nomada cuneata Rob. Toronto, May; Ottawa, May, (Sladen).
Nomada luteola Le P. Ottawa, May, (Sladen).
Nomada pascoensis Ckll. Vernon, B.C., July, (Cutler).
Nomada luteoloides Rob. Weymouth, N.S., May; Toronto, May, June.
Nomada citrina Cress. Saanich Dist., B.C., June, (Downes).
Nomada civilis Cress. Penticton, May, (Buckell); Okanagan Falls, April, (Buckell); Saanich Dist., June, (Downes).
Nomada nigrocincta Sm. Penticton, April, (Buckell); Aylmer, Que., May, (Sladen).
Nomada corvallisensis Ckll. Salmon Arm, B.C., April, (Buckell).
Nomada lewisi Ckll. Calgary, Alta., May, (Wolley-Dod).
Nomada vicina Cress. Kazubazua, Que., August, (Sladen); Port Sidney, August; Toronto, August, September; Lethbridge, August, (Sladen).
Nomada americana Kby. Woburn, Que., June, (Curran); Agassiz, May, (Sladen); Ottawa, April, May, (Sladen); Banff, Alta., April, May, (Sanson); Cranbrook, May, (Garrett).
Nomada cressoni Rob. Ft. Coulonge, Que., June (Beaulne); Ottawa, June, (Sladen).
Nomada illinoensis Rob. Cheticamp, C.B.I., June, July, (Johansen); Ottawa, June, (Sladen); Eastern Passage, N.S., July.
Nomada sayi Rob. Ottawa, May; Walhachin, Penticton, June, (E. R. Buckell).
Nomada articulata Sm. Bowmanville, Ont., Co. Hastings, Ont., (Evans); Toronto, Ont., May, June, (Harrington).
Nomada scita Ckll. Penticton, June, (Buckell); Walhachin, June, (Buckell).
Nomada superba Cress. Chilcotin, June, (Buckell); Victoria, May, (Downes).
Nomada obliterata Cress. Chelsea, May, (A. Gibson); Toronto, May, June; Ottawa, May 8, (Sladen).
Epeoloides pilosula Cress. Aylmer, Que., June, (Sladen); Aweme, Man,. July, (Sladen).
Bombomelecta pacifica Cress. Vaseaux Lake, B.C., May, (W. B. Anderson); Penticton, B.C., May, (Buckell).
Bombomelecta fulvida Cress. Medicine Hat, April, (Sladen); Penticton, April, (Buckell); Chilcotin, May, (Buckell).
Bombomelecta separata var. *maculata* Vier. Victoria, B.C., April, (Treherne); Royal Oak, B.C., May, (Treherne).
Epeolus bifasciatus Cress. Grimsby, Ont., July.
Epeolus lectoides Rob. Ottawa, Ont., July, (Sladen).
Epeolus autumnalis Rob. Sully, Que., June, (Sladen); Sudbury, Ont.
Triepeolus pectoralis Rob. Grimsby, Ont., August.
Triepeolus lestes Ckll. Medicine Hat, August, (Sladen); Vernon, B.C., August and July, (Sladen); Victoria, July, (Sladen).
Triepeolus donatus Sm. Toronto, August, September; Ottawa, August, (Sladen); Athabasca, Alta., Aug.
Triepeolus rectangularis Ckll. Summerland, B.C., July, (Sladen).

Triepeolus helianthi Rob. Medicine Hat, July, August, (Sladen); Lethbridge, July, (Sladen).
Triepeolus cressoni Rob. Ottawa, July, August, (Sladen).
Triepeolus occidentalis Cress. Medicine Hat, August, (Sladen); Vernon, B.C., July, (Sladen).
Holcopasites illinoensis Rob. Medicine Hat, July, August, (Sladen); Lethbridge, Alta., July, (Sladen); Prince Albert, July, (Sladen).

Euceridæ

Melissodes desponsa Sm. Ft. Coulonge, Que., August, (Beaulne); Quebec City, August, (Sladen); Ottawa, July, (Sladen); Toronto, July.
Melissodes illata L. & C. Kazubazua, Que., July, August, September, (Sladen); Fredericton, N.B., August, (Sladen); Hull, Que., August, (Beaulne); Aweme, August, (Criddle); Maryfield, Sask., August, (Criddle); Medicine Hat, July, (Sladen); Vernon, B.C., July, (Sladen).
Melissodes microsticta Ckll. Vernon, B.C., July, (Ruhmann); Royal Oak, August, (Downes).
Melissodes mysops Ckll. Medicine Hat, July, (Sladen); Vernon, B.C., July, August, (Ruhmann); Thompson River, August, (T. Wilson).
Tetralonia edwardsi Cress. Vernon, B.C., August, May, (Treherne); Fairview, B.C., May, (Buckell); Lillooet, B.C., May, (E. M. Anderson).
Tetralonia actuosa Cress. Vernon, B.C., May.
Tetralonia cordleyi Vier. Vaseaux Lake, B.C., June, (Buckell); Fairview, May, (Buckell); Penticton, B.C., July, (Buckell); Vernon, June, (Treherne); Lillooet, B.C., June, (Phair.)
Tetralonia fowleri Ckll. Vaseaux Lake, B.C., June, (Buckell); Fairview, May, (Buckell); Victoria, June, (Downes).

Anthophoridæ

Anthophora johnsoni Ckll. Penticton, April, (Buckell); Okanagan Falls, May, (E. M. Anderson).
Anthophora sodalis Cress. Aweme, Man., July, (Criddle); Lethbridge, Alta., May, June, (Sladen); Penticton, June, (Buckell).
Anthophora stanfordiana Ckll. Golden, B.C., May, (Sladen); Penticton, June, (Buckell); Kaslo, B.C., July, (Cockle).
Anthophora washingtoni Ckll. Summerland, B.C., July, (Sladen); Penticton, August, September, (Buckell).
Anthophora ignava Cress. Vaseaux Lake, June, (Sladen); Penticton, April, May, (Buckell); Lillooet, May, (E. M. Anderson).

Hylæidæ

(*Prosopis*) *Hylæus mesillæ* Ckll. Medicine Hat, Alta., May, (Sladen); Fairview, May, (Buckell); Summerland, August, (Sladen).
Hylæus verticalis Cress. Toronto, July; Ottawa, June.
Hylæus saniculæ Rob. Toronto, July.
Hylæus nevadensis Ckll. Kaslo, B.C., June, (J. W. Cockle).
Hylæus cooki Metz. Kaslo, B.C., June, (Cockle).
Hylæus tridentulus Ckll. Kaslo, June, (Cockle); Penticton, June, (Buckell).

Colletidæ

Colletes compactus Cress. St. John, N.B., September, (Leavitt); Truro, N.S., September; Bridgetown, N.S., September.
Colletes æstivalis Patt. Aweme, Man., July, (Sladen).
Colletes willistoni Rob. Point Pelee, Ont., June, (N. K. Bigelow); Kazubazua, Que., June, (Sladen).
Colletes nudus Rob. Point Pelee, Ont., July, (N. K. Bigelow).
Colletes tegularis Swenk. Vernon, B.C., September, (Buckell).
Colletes angelicus Ckll. Penticton, B.C., September, (Buckell); Walhachin, September, (Buckell).

Megachilidæ

Formicapis neomexicanum Ckll. (= *F. clypeata* Sla.) Aweme, Man., July, (Criddle); Waterhole, Alta., August, (E. H. Strickland).
Andronicus producta Cress. Hemmingford, Que., June, (Beaulne); Aylmer, Que., June, (Sladen); Toronto, June; Ottawa, May, June, July, (Sladen); Saskatoon, May, (Sladen); Lethbridge, June, (Sladen).
Monumetha argentifrons Cress. Ironsides, Que., June (Sladen); Toronto, August; Teulon, Man., June; Ft. William, Ont., June, (Sladen); Banff, Alta., August, (Sanson); Penticton, June, (Buckell); Ft. Simpson, McKenzie River, June, (C. H. Crickmay); Nicola Lake, B.C., May, (Buckell); Shawinigan Lake, V. I., July, (Sladen).
Osmia odontogaster Ckll. Sidney, B.C., May, (Sladen); Victoria, B.C., May, (Downes).
Osmia georgica Cress. Toronto, June.

Osmia simillima Sm. Sudbury, Ont., July.
Osmia californica Cress. Okanagan Lake, B.C., April, (T. Wilson); Lytton, B.C., July, (T. Wilson).
Megachile relativa Cress. Regina, Sask., August, (T. N. Willing); Peachland, B.C., August, (J. B. Wallis).
Megachile pruina Sm. Medicine Hat, August, (Sladen); Swift Current, Sask., August, (Sladen); Lethbridge, June, August, (Sladen); Summerland, B.C., August, (Sladen).
Megachile optiva Cress. Toronto; Muskoka.
Megachile montivaga Cress. Ottawa, July, (Sladen).
Megachile subexilis Ckll. Aweme, Man., July, (Criddle); Saskatoon, July, (Sladen); Melfort, Sask., July, (Sladen); Calgary, July, (Sladen); Banff, July, (Sanson); Lethbridge, June, (Sladen); Penticton, June, (Buckell) Ft. Norman, McKenzie Rv., August, (Crickmay).
Dianthidium notatum Latr. Summerland, August, (Sladen).
Anthidium cognatum Cress. Western Canada, (Cockerell).
Anthidium porteræ Ckll. Calgary, (Cockerell).
Cœlioxys mœsta Cress. St. Anne de la Porcatiere, August, (Sladen); Trenton, Ont., September, (Evans); Toronto, August; Ottawa, June, July, (Sladen); Bear Lake, Alta., August, (E. H. Strickland); Peachland, August, (J. B. Wallis); Shawinigan, V.I., July, (Sladen).
Cœlioxys dubitata Sm. Kirk's Ferry, Que., July, (Sladen); Athabasca, Alta., August, (E. H. Strickland).
Cœlioxys deplanata Cress. Medicine Hat, August, (Sladen).
Cœlioxys banksi Cwfd. Toronto, September.
Cœlioxys comstocki Cress. Lake Simcoe, Ont., September, (E. M. W.); Ottawa, July, (Sladen).
Cœlioxys sodalis Cress. Toronto; Point Pelee, Ont., June, (N. K. Bigelow).

Stelididæ

Stelis tripetinum Rob. (=*Stelis ontariana* Sla.) Ottawa, August.
Stelis monticola Cress. Vernon, B.C., (E. P. Venables).
Stelis montana Cress. Okanagan Falls, B.C., July, (Sladen); Lethbridge, June, July, (Sladen); Banff, August, (Garrett); Ft. Steel, B.C., June, (W. B. Anderson).
Stelis elegans Cress. Penticton, June, (Buckell).

Ceratinidæ

Ceratina acantha Prov. Aweme, Man., July, (Sladen); Oliver, B.C., April, May, June, September, (Garrett); Gordon Hd., B.C., July, (Downes); Victoria, April, May, (Treherne).

Apidæ

Bremus affinis Cress. Grimsby, Ont., August, (Sladen); Grimsby, Ont., September, (Brimley).
Bremus strenuus Cress. Kutlan Glacier, Y. T., June, (Alf. Pattison).
Bremus arcticus Kby. Bernard Harbour, N.W.T., June, August, (C. E. A.); Cape Ross, N.W.T., June, (V. Stefansson); Herschell Is., July, (F. Johansen).
Bremus bifarius Cress. Victoria, B.C., (F. W. Taylor); Banff, Alta., (N. B. Sanson).
Bremus bifarius nearcticus Handlirsch. Clinton, B.C., May, (R. Phair); White Horse, Y.T., July, (A. P. Hawes); Banff, Alta., September, (C. B. D. Garrett).
Bremus americanorum Fabr. N.S.
This is the same species that was recorded in the 1907 Ent. Rec. from Ottawa under the name "*Bombus pennsylvanicus* D. G."

Hemiptera

(Arranged according to Van Duzee's Check List)

Cicadellidæ

* *Phlepsius marmor* S. & Del. Onah, Man., July, on *Juniperus horizontalis* (Criddle). Proc. Ent. Soc. Wash., Vol. 25, No. 7, 1923.

Miridæ

* *Lopidea lathyræ* Kt. Aweme, Man., on *Lathyrus* (Criddle); Saskatoon, Sask., (A. E. Cameron).
* *Lopidea dakota* Kt. Winnipeg, Man., (Mitchener and Cocks); Saskatoon, Sask., (Cameron).
These two species described in Ent. News, Vol. XXXIV, No. 3, 1923.

Notonectidæ

* *Notonecta borealis* Tor. B. & Hu. Bearfoot Mountains, B.C., Sept.
Bul. Brook. Ent. Soc., Vol. XVIII, No. 3, 1923.

Ephemeroptera

* *Tricorythus atrata* McD. Wakefield, Que., August, (McDunnough).
* *Baetis phœbus* McD. Ottawa, Ont., (McDunnough and Richardson).
* *Baetis dardanus* McD. Aweme, Man., June, (Criddle).
* *Baetis nanus* McD. Ottawa, Ont., August, (McDunnough).
* *Centroptilum fragile* McD. Ottawa, Ont., August, (McDunnough).
* *Centroptilum curiosum* McD. Ottawa, Ont., August, (McDunnough).
* *Cloeon ingens* McD. Nordegg, Alta., (McDunnough); Banff, Alta., Banff, Alta., August, (Garrett).
* *Cloeon rubropicta* McD. Ottawa, Ont., June, August, Norway Point, Lake of Bays, Ont., July, (McDunnough).
* *Cloeon punctiventris* McD. Ottawa, Ont., August, (McDunnough).
* *Cloeon chlorops* McD. Ottawa, Ont., August, (McDunnough).
* *Siphlonuroides crœsus* McD. Ottawa, Ont., May, (McDunnough).
* *Siphlonuroides midas* McD. Ottawa, Ont., May, (McDunnough).
* *Siphlonurus berenice* McD. Cascades, Que., June, (McDunnough).
* *Siphlonurus phyllis* McD. Banff, Alta., July, (Garrett).
* *Ameletus validus* McD. Banff, Alta., October, (Garrett).
All these species described in Can. Ent., Vol. LV., No. 2, 1923.

Plecoptera

Perlidæ
* *Nemoura cornuta* Claas. Nanaimo, B.C., June, (E. P. Van Duzee).
* *Nemoura columbiana* Claas. Laggan, Alta., (J. C. Bradley).
* *Nemoura trispinosa* Claas. Murray Bay, Que., July, (E. Corning).
* *Leuctra bradleyi* Claas. Emerald Lake, B.C., July, (Bradley).

Odonata

Agrionidæ
Agrion æqualis Say. Winnipeg, Man., (Wallis).
Agrion maculatum Beau. Waugh, Man., July, (Wallis).

Libellulidæ
* *Williamsonia fletcheri* Will. Mer Bleue, Ont., (Young, McDunnough and Richardson). Can. Ent., Vol. LV., No. 4, 1923.

Orthoptera

Acrididæ
Acrydium brunneri (Bolivar). Fredericton, N.B., 1918, (G. P. Walker). (New to Province).
Platybothrus brunneus (Thomas). Goodlands, Man., Aug., 1923, (N. Criddle). (New to Province).
Dissosteira spurcata Saussure. Oliver, B.C., Aug., 1922, (E. R. Buckell). (New to Canada).
Trimerotropis gracilis (Thomas). Chilcotin, B.C., July, 1921, (E. R. Buckell). (New to Canada).
Trimerotropis salina McNeill. Baldur and Ashdown, Man., July, 1920, (N. Criddle). (New to Canada).
Schistocerca alutacea (Harris). Medicine Hat, Alta., Aug., 1923, (L. H. Seamans). (New to Canada).
Hesperotettix pratensis Scudder. Oliver, B.C., July, 1922, (E. R. Buckell). (New to Canada).
Hypochlora alba (Dodge). Goodlands, Man., Sept., 1923, (N. Criddle).
Phœtaliotes nebrascensis (Thomas). Oliver, B.C., Aug., 1919, (E. R. Buckell). (New to Province).
Asemoplus somesi Hebard. Banff, Alta., July, 1922, (C. B. D. Garrett).
Melanoplus borealis junius (Dodge). Anahim Lake, B.C., Aug., 1921, (E. R. Buckell). (New to Province).

Tettigoniidæ
Peranabrus scabricollis (Thomas). Nicola, B.C., Aug., 1922, (E. R. Buckell). (New to Canada).

Gryllidæ
Nemobius fasciatus (DeGeer). Kelowna, B.C., Aug., 1922, (E. R. Buckell). (New to Province).

ARACHNIDÆ

Linyphiidæ

Ceratinella atriceps Comb. Cabot Lake, Labr.
Gongylidium armatus Banks. Cabot Lake, Labr.
Hilaira brunneus Em. Cabot Lake, Labr.
Linyphia limitanea Em. Cabot Lake, Labr.
Erigone longipalpis Sund. South Labr.

Epeiridæ

Epeira angulata Clk. Cabot Lake, Labr.

Lycosidæ

Pardosa forcifera Thor. Nain, Labr.

All the above spiders taken by F. W. Waugh and presented to the Canadian National Collection.

The following species were described in the Can. Ent., Vol. LV, No. 10, 1923.

Linyphiidæ

* *Gongylidium columbianum* Em. Terrace, B.C., (Mrs. Hippisley).
* *Areoncus pedalis* Em. Dauphin, Man., (Hippisley).
* *Grammonota spinimana* Em. Moose Island, James Bay, (F. Johansen).
* *Cornicularia pacifica* Em. Terrace, B.C., (Hippisley).
* *Delorrhipus bicornis* Em. Terrace, B.C., (Hippisley).
* *Lophocarenum minimum* Em. Terrace, B.C., (Hippisley).
* *Lophocarenum inflatum* Em. Terrace, B.C., (Hippisley).

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BUREAU OF MUNICIPAL AFFAIRS

REPORT *RE* HOUSING

FOR 1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
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1924

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TORONTO
CANADA

To His Honour Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I herewith beg to present for your consideration the report re Housing of The Bureau of Municipal Affairs for 1923.

Respectfully submitted,

Lincoln Goldie,
Provincial Secretary.

To the Honourable Lincoln Goldie,
Provincial Secretary of the Province of Ontario.

Sir,—I have the honour to submit for your approval the Report re Housing of The Bureau of Municipal Affairs for 1923.

I have the honour to be,

Sir,

Your obedient Servant,

J. A. Ellis,
Director of the Bureau of Municipal Affairs.

REPORT *re* HOUSING FOR 1923

REPORT OF DIRECTOR.

This report deals with the work which has been done under the Ontario Housing Act of 1919 in the year 1923, and with the work which has been done under the Municipal Housing Act of 1920 in 1923.

Loans.

The amount advanced by the Dominion Government to the Province for Housing purposes is $9,350,000.00. $8,653,655.99 has been advanced by the Province to 77 municipalities, under the provisions of the Ontario Housing Act, 1919, and a number of payments are yet to be made by the Province to a few municipalities. $4,321,267.25 was advanced to 17 cities. $3,076,211.48 was advanced to 37 towns. $357,329.00 was advanced to 14 villages. $898,848.26 was advanced to 9 townships.

Repayments by Municipalities up to the end of 1923.

There has been repaid to the Provincial Treasurer on account of monthly repayments $1,876,680.00 of which $732,584.62 is principal, and $1,144,095.62 is interest. There has also been repaid to the Provincial Treasurer the sum of $399,225.31 on account of loans in excess of monthly repayments. Up to the same date the Provincial Treasurer has also received $187,580.50 for interest on moneys advanced on progress estimates during construction. The total amount received is $2,463,486.05.

Arrears.

There are only three municipalities in arrears, and steps are being taken to collect these arrears. The monthly repayments are as a rule remitted promptly on the 1st of each month.

Houses erected.

A summary of the houses erected in the years 1919, 1920, 1921, 1922, and 1923 under the Ontario Housing Act, 1919 is as follows:—

No. of Houses		Loans	Average loan per house
		$ c.	$ c.
139	Four roomed, frame clapboard finish	384,499 00	2,766 18
1	" " brick veneer	3,500 00	3,500 00
3	" " solid brick, hollow tile, etc	7,575 00	2,525 00
134	Five roomed, frame clapboard finish	392,055 00	2,925 78
51	" " frame stucco finish	169,650 00	3,326 47
70	" " brick veneer	229,520 00	3,278 86
104	" " solid brick, hollow tile, etc	348,220 00	3,348 27
379	Six roomed, frame clapboard finish	1,102,751 00	2,909 63
151	" " frame stucco finish	502,703 00	3,329 15
469	" " brick veneer	1,522,989 00	3,247 31
715	" " solid brick, hollow tile, etc	2,737,279 00	3,828 36
42	Over six rooms, frame clapboard finish	112,550 00	2,679 76
30	" " frame stucco finish	90,500 00	3,016 67
36	" " brick veneer	102,325 00	2,842 36
135	" " solid brick, hollow tile, etc	519,797 00	3,850 00
2,459		$8,225,913 00	$3,345 22
	In addition to the above, loans were made in 17 municipalities for the purchase of land amounting to	256,374 08	
	Increases were also made in loans amounting to	104,136 40	
	Advanced to Walkerville under Ontario Housing Act, 1919. NOTE.—The houses on account of which this advance was made are included in the list of houses erected under the Municipal Housing Act, 1920	130,000 00	
		$8,716,423 48	

Of the above 2,195 are detached houses and 218 are semi-detached, 30 are in groups of 3, and 16 are of the 4 units type.

One hundred six-roomed, brick veneer, houses were erected by the Town of Walkerville, and financed largely under the Municipal Housing Act, 1920. However, $130,000.00 was advanced by the Province in connection with these houses under the provisions of the Ontario Housing Act, 1919.

A summary of the houses erected in the years 1920, 1921, 1922, and 1923 under the Municipal Housing Act, 1920, is as follows:—

No. of Houses		Loans	Average loan per house
		$ c.	$ c.
10	Four roomed, frame clapboard finish	26,000 00	2,600 00
30	" " frame stucco finish	99,781 00	3,326 03
34	" " brick veneer	132,530 00	3,897 94
71	" " solid brick, hollow tile, etc	31,500 00	4,436 62
1	Five roomed, frame clapboard finish	3,500 00	3,500 00
18	" " brick veneer	69,000 00	3,833 33
7	" " solid brick, hollow tile, etc	30,000 00	4,285 71
91	Six roomed, frame clapboard finish	310,458 66	3,411 63
4	" " frame stucco finish	14,000 00	3,500 00
160	" " brick veneer	620,000 00	3,875 00
296	" " solid brick, hollow tile, etc	1,258,700 00	4,252 36
11	Over six rooms, frame clapboard finish	36,000 00	3,272 72
1	" " frame stucco finish	4,000 00	4,000 00
20	" " brick veneer	72,500 00	3,625 00
20	" " solid brick, hollow tile, etc	86,500 00	4,325 00
774		$2,794,469 66	$3,610 43

All the above houses are detached.

It will be noticed that $2,794,469.66 has actually been expended for the erection of the above houses under the Municipal Housing Act, 1920, whereas bonds have been guaranteed for 18 municipalities amounting to $3,058,677.56. The balance is for houses which are in course of erection. $1,585,659.99 was guaranteed in 5 cities, $1,338,821.57 was guaranteed in 9 towns, $34,196.00 was guaranteed in 3 villages, and $100,000.00 was guaranteed in 1 township.

Summary.

It will be seen that about 67 per cent. of all the houses erected in 1919, 1920, 1921, 1922, and 1923 were either of brick veneer or solid construction.

The total number of houses erected in these years is 3,233 and the loans made therefor amount to $11,020,382.66. In 1923 alone, 257 houses were erected, and the loans made therefor amount to $778,512.00.

Municipalities which have come under the provisions of "The Ontario Housing Act, 1919."

Cities	Amount appropriated	Amount actually paid by Province in 1919, 1920, 1921 1922, and 1923
Belleville	$25,000 00	$19,300 00
Brantford	250,000 00	246,513 00
Chatham	.....	.....
Fort William	250,000 00	36,200 00
Galt	200,000 00	39,305 00
Guelph	250,000 00	250,000 00
Hamilton	500,000 00	497,100 00
Kitchener	.....	.....
London	400,000 00	398,364 00
Niagara Falls	300,000 00	290,914 00
Ottawa	750,000 00	749,910 00
Peterborough	.....	.....
Port Arthur	150,000 00	16,779 68
Sarnia	100,000 00	97,000 00
Sault Ste. Marie	200,000 00	199,050 00
St. Catharines	150,000 00	150,714 00
Stratford	250,000 00	155,780 00
Welland	250,000 00	141,004 00
Windsor	1,000,000 00	933,983 57
Woodstock	100,000 00	99,350 00
	$5,125,000 00	$4,321,267 25
Towns		
Arthur	$25,000 00	.....
Brampton	100,000 00	$66,007 00
Brockville	.....	.....
Bridgeburg	50,000 00	.....
Burlington	.....	.....
Capreol	41,000 00	41,000 00
Carleton Place	30,000 00	.....
Chapleau	.....	.....
Charlton	50,000 00	700 00
Cobourg	.....	.....
Cochrane	75,000 00	75,000 00
Englehart	8,000 00	8,000 00
Ford City	150,000 00	141,200 00
Fort Frances	4,000 00	4,000 00
Goderich	100,000 00	5,250 00
Gravenhurst	.....	.....

	Amount appropriated	Amount actually paid by Province in 1919, 1920, 1921 1922, and 1923
Towns—Continued		
Haileybury	$300,000 00	$114,350 00
Hawkesbury	150,000 00	130,000 00
Hespeler	50,000 00	.....
Ingersoll	75,000 00	36,950 00
Iroquois Falls	150,000 00	150,000 00
Kapuskasing	400,000 00	253,688 21
Leamington	50,000 00	41,690 00
Leaside	100,000 00	99,450 00
Listowel	50,000 00	39,615 00
Merritton	25,000 00	22,500 00
Midland	75,000 00	59,048 00
Milton	20,000 00	16,700 00
Milverton	50,000 00	26,000 00
Mimico	200,000 00	15,800 00
New Toronto	200,000 00	199,564 27
North Bay	.....	.....
Niagara	30,000 00	.....
Oshawa	600,000 00	560,675 00
Owen Sound	.....	.....
Palmerston	50,000 00	.....
Paris	66,000 00	66,000 00
Perth	25,000 00	25,000 00
Port Colborne	150,000 00	149,944 00
Renfrew	60,000 00	12,500 00
Sandwich	150,000 00	146,400 00
Sioux Lookout	40,000 00	15,000 00
Smith's Falls	60,000 00	23,100 00
Sturgeon Falls	60,000 00	15,600 00
Sudbury	150,000 00	148,530 00
Thorold	50,000 00	47,650 00
Timmins	40,000 00	6,000 00
Trenton	200,000 00	16,800 00
Uxbridge	.....	.....
Walkerville	250,000 00	246,500 00
Waterloo	.....	.....
Whitby	50,000 00	50,000 00
	$4,559,000 00	$3,076,211 48
Villages		
Acton	$30,000 00	$1,500 00
Beaverton	20,000 00	13,000 00
Chippawa	30,000 00	22,200 00
Elmira	40,000 00	13,155 00
Fergus	50,000 00	49,800 00
Georgetown	80,000 00	73,250 00
Hensall	.....	.....
Humberstone	50,000 00	12,305 00
Madoc	30,000 00	.....
Point Edward	30,000 00	30,000 00
Port Credit	100,000 00	34,300 00
Port Dalhousie	50,000 00	43,519 00
Port McNicoll	30,000 00	10,100 00
Richmond Hill	25,000 00	25,000 00
Tara	10,000 00	7,500 00
Victoria Harbour	10,000 00	.....
Woodbridge	50,000 00	21,700 00
	$635,000 00	$357,329 00

	Amount appropriated	Amount actually paid by Province in 1919, 1920, 1921 1922, and 1923
Townships		
Barton	$100,000 00	$100,903 26
Brantford	50,000 00	34,700 00
Bucke	50,000 00	25,700 00
Etobicoke	150,000 00	140,700 00
Gloucester	.....	.....
Guelph	50,000 00	7,500 00
Neebing	.....	.....
Pickering	30,000 00	.....
Sandwich E	55,000 00	54,975 00
Scarborough	100,000 00	25,800 00
Stamford	30,000 00	29,800 00
Thorold	30,000 00	.....
West Oxford	30,000 00	.....
York	500,000 00	478,770 00
	$1,175,000 00	$898,848 26
Total of		
Cities	$5,125,000 00	$4,321,267 25
Towns	4,559,000 00	3,076,211 48
Villages	635,000 00	357,329 00
Township	1,175,000 00	898,848 26
	$11,494,000 00	$8,653,655 99

Municipalities which have come under the provisions of "The Municipal Housing Act, 1920."

	Amount of bonds guaranteed
Cities	
Belleville	.....
Chatham	.....
Kitchener	$135,000 00
London	300,000 00
Niagara Falls	75,659 99
Ottawa	.....
Peterborough	.....
Sarnia	150,000 00
Sault Ste. Marie	.....
Windsor	925,000 00
	$1,585,659 99
Towns	
Cochrane	$ 75,000 00
Ford City	250,000 00
Listowel	55,000 00
Ottawa	200,000 00
Riverside	200,000 00
Sioux Lookout	25,000 00
Sudbury	150,000 00
Tilbury	43,821 57
Walkerville	340,000 00
	$1,338,821 57
Villages	
Beaverton	$7,000 00
Fergus	10,000 00
Point Edward	17,196 00
	$34,196 00

	Amount bonds guaranteed
Townships	
Stamford	$100,000 00
Total of	
Cities	$1,585,659 99
Towns	1,338,821 57
Villages	34,196 00
Townships	100,000 00
	$3,058,677 56

The City of Ottawa has issued debentures for $45,000.00, and the Town of Milton has issued debentures for $15,000.00, but these municipalities have not requested any guarantee of these debentures by the Province.

Cost of Administration.

The cost to the Province of Administration of the Ontario Housing Acts is as follows:—

1919 (7 months)	$20,536 49
1920	28,566 45
1921	19,265 07
1922	10,251 43
1923	6,871 69
	$85,491 13

All the work has been performed under the direction of the undersigned.

J. A. Ellis,
Director, Bureau of Municipal Affairs.

January 29th, 1924.

HAILEYBURY.

In October, 1922, the Town of Haileybury was almost completely destroyed by fire. Out of 934 buildings, 798 were so destroyed. Under the authority of section 5 of Chapter 7 of 13-14 Geo. V, $300,000.00 was by Order-in-Council appropriated to Haileybury under the provisions of The Ontario Housing Act, 1919, for the purpose of aiding in the re-construction of the Town.

Loans have been made for the following houses which have been erected:—

No. of Houses 1922		Loans, 1922
6	Four roomed, frame clapboard finish	$10,450 00
1	Four roomed, brick veneer	3,500 00
4	Five roomed, frame clapboard finish	10,750 00
20	Six roomed, frame clapboard finish	52,050 00
1	Six roomed, brick veneer	3,000 00
1	Six roomed, solid brick	2,500 00
12	Over six rooms, frame clapboard finish	34,000 00
1	Over six rooms, brick veneer	3,100 00
46		$119,350 00

The following is a report which was made by the Department's Town Planners on 26th November, 1923:—

The construction which has been carried out by the Haileybury Commission seems to us to have been done in a very satisfactory manner from every point of view. This commission has received applications for, has approved and are constructing, something like forty odd houses. They tell us that they had to refuse something like four applicants, and that difficulty between the Commission and the applicant has occured in one instance only. The houses which have been erected are good in construction and are varied in design to a very marked degree. In many cases the loans made by the Commission have been to assist individuals who had a certain amount of money in addition to their lot, so there are a limited number of houses which as a matter of size could not be built as they have been for the amount allowed by the Act. In other cases the Commission has assisted the applicant to a marked degree in showing him how the one room which was originally built from lumber received from the relief committee could be incorporated with little change into the structure of his house. It would seem that the Commission has very well guarded their municipality against financial risks, and has taken a great deal of pains to assist, advise, and direct their individual applicants.

As the appropriation for Haileybury was made at the time of uncertain conditions as to the future of the town, the fact which is most impressive at the present is that the houses which have been erected with Housing assistance form a small part of the houses which have been re-built and those houses which have been built by individuals without assistance show a very marked improvement over those which existed prior to the fire, and they are naturally built by the owners for their own occupancy. In commenting upon this fact to the Commission, we found that the plans which were sent by Mr. Govan the Department's Architect, and such Ontario architects as assisted him by allowing their plans to be used, had in many cases been made the basis of suggestions which the Housing Commission and their inspector had made to citizens who were not applying to the commission. Thus these plans have been of general help. Again the building inspector acting for both the Housing Commission and the municipality has had a great deal of influence upon the houses outside of those of the Commission.

We understand from the Mayor that as nearly as can be estimated without census, the Haileybury of to-day has something like a population of 2,800 to 3,000 people, which is we believe three-fourths of the normal population before the fire.

There have been a number of business blocks re-built during the season, a very imposing Masonic Temple, a fine brick church is replacing one that was destroyed, and there is every evidence of a material growth which should form the basis for a very credible assessment figure this coming Spring.

The railway station at Haileybury has been rebuilt in accordance with the plan which we suggested, and a much greater expenditure in the way of grading and approaches to the station are being made than we expected would be done immediately.

BUCKE TOWNSHIP.

Houses Erected.

"The Ontario Housing Act, 1919."

No. of Houses 1923		Loans, 1923
1	Four roomed, frame clapboard finish	$400 00
5	Five roomed, frame clapboard finish	3,700 00
1	Five roomed, solid construction	3,000 00
7	Six roomed, frame clapboard finish	8,200 00
9	Over six rooms, frame clapboard finish	16,050 00
23		$31,350 00

In a few of the above loans which were approved for small amounts the applicants used in addition funds of their own.

CHARLTON.

Houses Erected.

"The Ontario Housing Act, 1919."

No. of Houses 1923		Loans, 1923
1	Four roomed, frame clapboard finish	$1,360 00

FORD CITY

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
16	Five roomed, brick veneer	$64,000 00
8	Six roomed, brick veneer	36,000 00
24		$100,000 00

KAPUSKASING.

Houses Erected.

"The Ontario Housing Act, 1919."

No. of Houses 1923		Loans, 1923
52	Four rooms, frame clapboard and shingle finish.	$127,752 00

The Spruce Falls Housing Corporation is constructing the above houses.

LISTOWEL.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
2	Over six rooms, brick veneer	$7,000 00

MILTON.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
2	Five roomed, brick veneer	$5,000 00
1	Five roomed, concrete	3,000 00
2	Over six rooms, brick veneer	7,000 00
5		$15,000 00

OSHAWA.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
51	Six roomed, brick veneer	$187,100 00

RIVERSIDE.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
1	Four roomed, frame clapboard finish	$2,500 00
1	Five roomed, frame clapboard finish	3,500 00
1	Five roomed, hollow tile and stucco	4,500 00
5	Five roomed, solid brick	22,500 00
11	Six roomed, solid brick	49,500 00
2	Over six rooms, frame clapboard finish	9,000 00
21		$91,500 00

SIOUX LOOKOUT.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
1	Six roomed, frame clapboard finish.....	$3,000 00
1	Six roomed, brick veneer.....	3,000 00
2		$6,000 00

STRATFORD.

Houses Erected.

"The Ontario Housing Act, 1919."

No. of Houses 1923		Loans, 1923
19	Six roomed, brick veneer.....	$60,100 00

The above houses are being constructed by The Classic Housing Company and The Stratford Housing Company.

TILBURY.

Houses Erected.

"The Municipal Housing Act, 1920."

No. of Houses 1923		Loans, 1923
5	Six roomed, frame clapboard finish.....	$14,500 00
3	Over six rooms, frame clapboard finish.....	9,500 00
8		$24,000 00

WINDSOR.

Houses Erected.

"The Ontario Housing Act, 1919."

No. of Houses 1923		Loans, 1923
2	Five roomed, solid brick.....	$8,000 00

Ontario Department of Agriculture

ANNUAL REPORT

OF THE

STATISTICS BRANCH

1923

PART I.—AGRICULTURAL STATISTICS

PART II.—CHATTEL MORTGAGES

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO

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CANADA

Statistics Branch of Agriculture

PART I—AGRICULTURAL STATISTICS

THE WEATHER.

TEMPERATURE.—The following table gives the temperature of the Province for each month during the last five years, together with the mean annual temperature, also the mean temperature for the six months, April-September, practically the growing season, together with the average for the five years, 1919-1923, and the forty-two years, 1882-1923.

Months.	1923	1922	1921	1920	1919	1919–1923	1882–1923
January	16.4	16.8	23.0	7.8	24.5	17.7	17.9
February	14.5	19.5	23.6	15.8	23.7	19.4	17.3
March	22.6	30.8	35.8	31.2	30.7	30.2	27.2
April	39.4	43.2	47.9	38.9	41.0	42.1	41.7
May	50.2	58.3	57.2	53.4	53.9	54.6	53.8
June	65.6	64.3	66.0	64.9	71.1	66.4	63.7
July	67.2	67.2	75.4	65.0	71.3	69.2	68.4
August	64.2	65.6	65.9	68.0	66.3	66.0	65.6
September	59.3	61.3	64.5	61.9	61.2	61.6	59.4
October	46.8	47.6	48.0	54.1	50.1	49.4	47.5
November	36.4	38.0	32.9	34.3	34.4	35.2	35.3
December	33.0	23.4	24.1	27.2	17.9	25.1	23.7
Annual Mean	43.0	44.7	47.0	43.6	45.5	44.7	43.5
Mean for six months, April to September	57.7	60.0	62.8	58.7	60.8	60.0	58.8

The mean temperature for 1923 was 43.0 degrees, or 1.7 degrees colder than the preceding year, and 0.5 degrees below the normal for forty-two years, 1882-1923.

The mean for the six months, April-September, was 57.7, or 2.3 degrees colder than the preceding year, and 1.1 degrees colder than the forty-two year normal. June, November and December were the only months that were above, all the others being below their respective normals.

SUNSHINE.—In the following table the averages of sunshine are derived from the records of the weather stations at Woodstock, Toronto, Lindsay, Kingston and Ottawa.

Months.	Sun above horizon	1923	1922	1921	1920	1919	1919–1923	1882–1923
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
January	285.7	70.9	109.4	114.6	99.3	84.5	95.7	78.1
February	291.4	104.3	100.4	92.1	115.4	116.6	105.8	104.3
March	369.9	139.4	162.6	111.7	155.7	148.3	143.5	145.7
April	406.4	181.8	181.3	179.4	145.6	139.7	165.6	180.9
May	461.1	271.5	236.0	258.3	265.6	192.9	244.9	214.5
June	465.7	255.6	228.5	302.4	227.0	307.0	264.1	248.1
July	470.9	270.4	298.8	280.2	231.5	308.8	277.9	268.6
August	434.5	265.9	256.0	242.2	227.0	210.6	240.3	240.5
September	376.3	166.5	218.0	194.8	217.6	184.8	196.4	186.4
October	340.2	159.4	160.8	132.9	156.3	119.6	145.8	139.4
November	286.9	72.7	60.7	49.1	49.6	58.9	58.2	78.0
December	274.3	58.7	78.8	65.0	47.2	75.8	65.1	62.5
Total for the year.	4,463.3	2,017.1	2,091.3	2,022.7	1,937.8	1,947.5	2,003.3	1,947.0
Total for six months, April to September	2,614.9	1,411.7	1,418.6	1,457.3	1,314.3	1,343.8	1,389.2	1,339.0

The year 1923 had 2,017.1 hours of sunshine, 70.1 hours more than the average for the last forty-two years. The six growing months, April-September, had 1,411.7 hours or 72.7 more than average. Six months were above, one was average, and five below. May, with 57.0 hours in excess of its normal, had the greatest departure above, and September with a deficiency of 19.9 hours was the greatest below.

PRECIPITATION.—The fall of both rain and snow for the five winter months, including November, 1922, and March, 1923, is given in the following table for five years, together with the average for the forty-two years, 1882-1923. One inch of water is equivalent to ten inches of snow.

Months.	1923	1922	1921	1920	1919	1919–1923	1882–1923
November:	in.	in.	in.	in.	in.	in.	in.
Rain	1.25	1.08	1.72	1.89	2.03	1.59	1.93
Snow	5.1	11.7	10.1	7.2	3.1	7.4	7.4
December:							
Rain	0.47	1.39	1.79	0.07	1.37	1.02	1.27
Snow	14.2	12.9	16.3	14.1	15.4	14.6	15.4
January:							
Rain	0.35	0.33	0.47	0.00	0.55	0.34	0.90
Snow	20.9	14.1	7.5	20.1	11.4	14.8	18.9
February:							
Rain	0.11	0.89	0.21	0.00	0.57	0.36	0.73
Snow	12.9	16.2	13.3	14.8	9.6	13.4	15.8
March:							
Rain	0.80	1.21	3.01	1.28	1.82	1.62	1.20
Snow	18.1	8.0	4.4	7.3	11.6	9.9	10.6
Five months:							
Rain	2.98	4.90	7.20	3.24	6.34	4.93	6.03
Snow	71.2	62.9	51.6	63.5	51.1	60.1	68.1

The total amount of rainfall for the five months was 2.98 inches, or 3.05 inches below the average for the forty-two years, 1882-1923.

The total amount of snowfall was 71.2 inches, or 3.1 inches above normal. January and March were above, while November, December and February were below their respective averages for the forty-two year period.

The rainfall for the six months, April-September, comprising what is regarded as the growing season for most crops, is given in the following table, covering the last five years, 1919-1923, and the normal for the forty-two years, 1882-1923.

Months.	1923	1922	1921	1920	1919	1919–1923	1882–1923
	in.	in.	in.	in.	in.	in.	in.
April	1.81	3.22	2.92	2.31	2.53	2.56	1.88
May	2.85	1.86	2.05	0.82	4.24	2.36	2.78
June	3.13	3.47	2.13	2.85	2.26	2.77	2.78
July	1.99	3.50	3.64	3.56	2.16	2.97	2.80
August	2.75	2.31	2.49	2.13	2.95	2.53	2.67
September	2.54	2.34	2.76	2.43	2.88	2.59	2.62
Total for six months	15.07	16.70	15.99	14.10	17.02	15.78	15.53

The rainfall for the six months, April-September, was 15.07 inches, or 1.63 inch less than the previous year, and in comparison with the forty-two years it was 0.46 inch less. Three months, May, June and August, were above, and three were below, April, July and September, their respective averages, the extremes being June 0.35 inch above, and July 0.81 inch below.

SPRING SEEDING.

When the bulk of correspondents reported regarding growing conditions on the 21st of May, vegetation was reckoned as being about two weeks later than usual, with fewer live stock on the grass, and spring seeding only a little more than half done, except in some of the more favoured counties in south-western part of the Province. The newly sown grains found an excellent seed bed as a rule, but the cold weather following seeding was not favourable to early germination, and the fields were not sufficiently advanced in most cases to give an indication as to how successful or otherwise the catch had been, although favourable results were expected. The crop bulletin issued in that month stated: "It is a question if the area under field crops this season will exceed that of last year, for while some correspondents are of opinion that there will be a somewhat increased acreage of mixed grains, barley, oats, buckwheat, peas, corn or beans, others speak of shorter production and more fallowing."

STATISTICS OF FARM CROPS.

Field Crops.	Acres.	Production.	Bushels per acre.	Market Value.	
				Total.	Per acre.
		bush.	bush.	$	$ c.
Fall Wheat	717,307	16,599,067	23.1	15,976,322	22.27
Spring Wheat	111,601	1,937,937	17.4	1,865,540	16.72
Barley	452,490	13,523,349	29.9	8,487,609	18.76
Oats	2,967,417	103,485,442	34.9	46,937,124	15.82
Peas	117,409	2,030,850	17.3	2,940,685	25.05
Beans	41,127	633,713	15.4	1,538,701	37.41
Rye	123,354	2,011,325	16.3	1,481,691	12.01
Buckwheat	230,276	5,012,010	21.8	3,670,511	15.94
Flax	6,766	68,684	10.2	140,376	20.75
Corn (in the ear)	285,335	19,292,244	67.6	9,710,461	34.03
Potatoes	164,682	19,131,980	116.2	14,306,447	86.87
Carrots	1,780	285,270	160.0	57,054	32.05
Mangels	35,118	14,865,791	423.0	2,973,158	84.66
Turnips	65,193	27,099,910	416.0	5,419,982	83.14
Sugar Beets	22,450	8,647,615	385.0	1,729,523	77.04
Mixed Grains	648,934	23,880,889	36.8	14,290,315	22.02
		Tons	Tons		
Corn (for silo) green	409,628	3,651,102	8.91	14,604,408	35.65
Hay and Clover	3,596,484	5,799,422	1.61	64,069,155	17.81
Alfalfa	299,610	788,431	2.63	8,915,438	29.76
Totals—					
1923	10,296,961	.....	.....	219,114,500	21.28
1922	10,258,613	.....	.....	223,342,150	21.77
1921	10,075,073	.....	.....	222,177,881	22.05
1920	10,108,272	.....	.....	367,608,619	36.37
1919	9,915,884	.....	.....	397,238,400	40.06
1918	9,992,825	.....	.....	363,909,778	36.42
1917	9,718,259	.....	.....	333,353,438	34.30
1916	9,548,876	.....	.....	223,748,948	23.43
1915	9,762,951	.....	.....	210,674,415	21.58
1914	9,621,444	.....	.....	199,152,945	20.70
1913	9,541,537	.....	.....	168,455,253	17.65

Ratios of Areas Under Crop.—The following table shows the number of acres under the various crops in 1922 and 1923 per 1,000 acres of cleared land, together with annual averages for various periods.

Year.	Fall Wheat.	Spring Wheat.	Barley	Oats	Peas.	Beans.	Rye.	Buck-wheat.	Corn.	Potatoes.	*Roots.	Hay and Clover.	Mixed Grains.
1923	47.6	7.4	30.1	197.1	7.8	2.7	8.2	15.3	46.2	10.9	8.3	238.9	43.1
1922	54.2	8.3	28.9	202.1	7.0	2.7	10.2	13.2	46.9	11.5	8.4	238.1	36.8
Annual average:													
1912–1921	44.5	13.4	38.4	189.9	9.1	4.0	9.0	12.9	46.6	10.8	11.0	237.5	35.6
1902–1911	51.3	13.0	50.7	192.8	27.7	3.6	8.0	9.4	40.1	10.9	15.8	219.0	†33.1
1892–1901	73.2	28.0	39.2	180.2	60.5	4.1	10.1	10.3	35.5	12.9	15.6	198.2	.....
1882–1891	81.6	50.9	67.2	150.4	60.5	2.4	9.4	6.2	17.7	14.0	12.2	207.1	.....
1882–1923	60.5	23.8	47.0	181.1	35.7	3.5	9.1	10.1	36.7	12.0	14.2	219.1	‡35.4

*Mangels, turnips, carrots and sugar beets. †1907-1911. ‡1907–1923.

The acreages devoted to other crops in 1923 were as follows: Orchards, 235,349; small fruits, 27,497; summer fallow, 186,123; pasture (cleared), 3,472,642.

Tobacco.—It is estimated that 8,630 acres were grown in tobacco in 1923, yielding 10,797,228 pounds, or 1,251 per acre. Of this Essex had 4,057 acres, 5,030,680 pounds or 1,240 per acre, and Kent had 4,202 acres, 5,487,812 pounds or 1,306 per acre.

Rape.—The estimate for 1923 was 16,905 acres, of which 5,037 are in Wellington, 2,230 in Grey, and 2,448 in Dufferin.

GRAIN CROPS.

Fall Wheat.—The bulletin sent out in December, 1922, contained the following statement: "The acreage of fall wheat sown will be a little less than that of last year. The ground was rather dry at seeding, but the catch was on the whole a good one. Timely rains fell later and brought the young wheat along very nicely, and taken as a whole it has met the winter well topped and vigorous-looking generally. There are odd complaints of grubs attacking the crop on sod, and the Hessian fly and wireworm were reported to be doing injury in several counties. Sowing covered a period from August 20th to the first week of October, most of it going in about September 10-20. Dawson's Golden Chaff is still the variety most largely grown."

The earliest announcement regarding the condition of fall wheat in 1923 was contained in the April bulletin, as follows: "Snow protected the fields almost unbrokenly from the latter part of December until March, the last week or two of the latter month showing an unusually low temperature with heavy falls of snow. The general tone of the reports regarding fall wheat is favourable, although there has been some injury from ice forming on low spots in Kent, Essex and other counties in the great fall wheat region of south-western Ontario. When correspondents made returns there had not been much heaving, but the next two weeks are regarded as the testing time for the crop. Some fields are said to be looking rather brown from cold, bleaching winds, with the added remark that the roots are still alive."

The May bulletin said: "Reports regarding the present condition of the crop vary greatly. While some correspondents describe the fields as looking 'extra well,' others report heavy losses from winter killing, chiefly from ice-forming. In the Lake Erie counties, where the crop is most largely grown, the losses are heaviest, many fields having been plowed up and sown to spring grains, or else patched up by having barley drilled in. More would have been plowed up but for the scarcity of labour. Kent, Norfolk and Elgin claim losses from winter-killing ranging from 25 to 40 per cent. There has been but little injury by insects, only two townships reporting the presence of the Hessian fly."

August reports regarding fall wheat were thus summarized: "There was a good deal of injury to fall wheat from ice forming on low-lying fields, and more of the crop than usual was plowed up or resown with barley or other spring grain. Rust was complained of in several districts, but not to a serious extent. In a few of the western counties some harm was done by the Hessian fly. Many fields were uneven in ripening, and both yield and quality of the grain are more variable than usual, although the general result may be reckoned as fair. Several correspondents complain of chess. The straw was rather on the short side. Harvesting extended from July 13th to August 5th, and the bulk of the crop was taken in under favourable circumstances."

The following appeared in the December bulletin: "This crop gave a good yield per acre, and while some correspondents describe the grain as being of good weight and quality, others refer to it as being rather shrunken owing to the dry, hot weather when heading. The straw was also rather short in length. Only odd mention was made of rust, but some complaints were made of the presence of chess."

The December crop bulletin said: "The area of fall wheat sown this season will be close upon that of a year ago. More likely would have been put in had the ground not been so dry and hard in the early fall. Seeding was successful as a rule, and the young wheat made a good, steady growth. Most of the crop was sown comparatively late to avoid the Hessian fly. Some was got in as early as the last week of August, and as late as the first week of October, but the bulk of the sowing was done during the second and third weeks of September. Most of the fields are vigorous-looking, with a good top for entering the winter. Only scattering mention is made of the presence of the Hessian fly. Dawson's Golden Chaff is still the most popular variety."

Spring Wheat.—This class of wheat is lessening in popularity, the acreage having fallen off rapidly since 1920. Both yield and quality at cutting were ranked at from poor to good, the drouth at filling having affected the crop. The straw was not up to the average length, and there were some complaints of rust. Cutting ranged from August 1st to the middle of the month.

Reports after threshing concerning the quality of this grain varied, ranging from fair to good. The yield per acre, however, was above the average.

Barley.—The August bulletin said: "Barley withstood the midsummer drouth better than any of the other grains, and on the whole may be considered a good crop, both as to yield and quality, taking the province over. Late sown did not do so well as that got in earlier. The straw was not of average length. Cutting extended from the last week of July to the middle of August."

Later advices were to the effect that barley has given more satisfaction than any of the other grain crops, considering both yield and quality, although a few correspondents described the sample as being light in weight and rather short in the length of straw.

Oats.—The August bulletin had the following regarding oats: "This crop is more variable in yield and quality than usual, early sown fields doing best. The general yield will be fair. There will be some light-weight grain, as the hot, dry weather hurried the ripening in many fields. There is mention of rust and smut, but as a rule the crop is fairly clean. There are some complaints of lack of length of straw. Harvesting took place in the first half of August, but some belated fields awaited cutting when correspondents reported."

The December bulletin thus summarized the condition of the oat crop: "It has been a little below the average in yield per acre, and is relatively lighter in weight than any of the other grains. There were only a few complaints of rust. The straw, like that of the other cereals, was lacking in length, but is of good quality. Late sown fields did not do so well as those got in earlier."

Rye.—Not much rye is now grown for grain, a large part of it being cut green for soiling. That raised for threshing was of fair yield and quality, and like all the other cereals had ideal weather for harvesting, which took place in the last week of July.

Later reports regarding this crop stated that, while hardly up to the average in yield per acre, the general quality of rye was satisfactory to those who grew it.

Peas.—August reports were to the effect that the acreage given to this crop was comparatively small, as most of the peas now grown in the province are harvested when green for the canneries. The vines were rather short in length, and the hot, dry weather when filling told somewhat against the yield, size and quality in late fields. The estimated yields reported ranged all the way from eight to thirty bushels an acre. Some late fields suffered from the aphis.

The December bulletin said: "While the yield per acre is less than usual, the general quality of peas is good, both where grown for canning or for feeding to live stock. Little injury from the weevil was reported."

Buckwheat.—Reports regarding buckwheat were not so favourable as usual. In many localities considerable of the crop was caught by early frost, and some of the fields were also injured by drouth in the early stages of growth. A few returns, however, spoke favourably of the crop.

Beans.—This crop was thus dealt with in the August bulletin: "Beans will not be harvested until the latter part of the month and the first week of September, and are likely to be less than an average in yield, as the midsummer weather was too hot and dry for good podding. However, some promising fields are reported. Late sown are said to be doing best."

Later reports were to the following effect: "Beans have given a fair return, although affected adversely in some quarters by wet weather at harvesting. Some fields planted late were touched by frost."

Corn.—"The weather in the spring was cold and wet, and caused much late seeding," said the August bulletin. "This, with the drouth in summer, has been trying to corn, nevertheless the crop is much more promising than was looked for earlier in the season. In the western part of the province cobbing has not been up to the usual, but nearly an average yield is hoped for should there be no frost before ripening. In eastern Ontario there are also fair prospects for corn for the silo, although the crop tasselled later than usual. Odd complaints only were made of injury from the borer in two of the western counties."

Reports sent in in November were thus summarized: "This has not been so good a corn year as usual, when both yield and condition are considered. The crop got a poor start at seeding, owing to backward weather, and later on entered a period of trying drouth. Just before ripening some fields got caught by early frost. Some correspondents, however, place the crop as from good to medium for silage. A few complaints of soft corn came from counties where it is raised chiefly for the cob. Only slight mention was made of the presence of the corn-borer."

CLOVER AND OTHER LEGUME CROPS.

The April bulletin said: "Clover, like fall wheat, has wintered well on the whole, owing to the heavy and steady protection of snow. A little injury has occurred from ice on odd spots in low-lying fields, but not seriously. So far but little heaving has been reported, and at present the prospects are considered very promising."

Clover and other legume crops were thus dealt with in the May bulletin: "Reports regarding clover are on the whole favourable, the crop having come through the winter with comparatively little loss. Cold weather early in the

spring delayed growth, but early May rains helped to bring the fields along in good order, and the outlook for the hay crop is regarded as promising. New seeding looks better than the older fields.

"Alsike, like red clover, wintered well.

"Reports regarding alfalfa are conflicting, some being enthusiastic concerning the crop, and others telling of heavy losses in old fields from winter killing.

"Sweet clover seems to be losing in favour. Some correspondents actually condemn it, others are slowing up in its support, while a few regard it as a good supplementary crop."

The August bulletin said: "Hay is relatively the best field crop of the season, and owing to the favourable weather at the time of cutting and curing it was harvested in the best condition, ensuring good quality. For the first time in years the eastern half of the province has done well with its hay crop, but in the new districts of the north the results have not been so favourable. New meadows did much better than the old fields. Cutting ranged from June 25th to July 12th as a rule, but in many cases grain harvesting overlapped, and a number of hay fields had to remain uncut until later, which meant a deterioration in quality.

"Alfalfa has also done well, and sweet clover has shown a good growth."

The December bulletin contained the following: "The yield of red clover seed is variously estimated at from poor to good. Some correspondents say the season was too dry at times for best results. There were a few complaints of midge.

"Alsike did better relatively than red clover for seed, although some light fields are reported. In the county of Peel, however, some returns are put as high as from ten to twelve bushels per acre.

"Alfalfa did well for seed, growers as a rule being encouraged by both yield and quality.

"While a few returns speak well of sweet clover, especially for plowing down for corn and other crops, a considerable number of farmers seem to have turned against it as a fodder, in many cases for good. Some added that they are finding it hard to get rid of it, both in the fields and along the roadsides."

POTATOES AND FIELD ROOTS.

Potatoes.—When correspondents reported in August potato fields looked well so far as the tops were concerned, but the tubers were said to be small, owing to the long-drawn-out dry weather, which was likely to reduce the yield. A number of correspondents, however, claimed that there would likely be an average yield. Early planted potatoes did better than those put in later. Prospects were rated as from poor to good in Northern Ontario, where considerable business is done in producing certified seed. Generous rains were falling as the latest reports came in, and were expected to improve conditions.

The December bulletin said: "The yield of potatoes ranges from light to good, but is hardly up to the average. Early varieties were small in size owing to drouth. Very little rot has so far been reported."

The August bulletin thus referred to the root crops: "Drouth at the time of seeding affected germination, and the comparatively dry summer also prevented the best form of growth. As a result all classes of roots were rather small in size and needed rain when correspondents wrote. There is still ample time for the fields to pick up and give a good yield."

The following regarding roots appeared in the December bulletin: "The weather at the time of the lifting of roots was on the whole very favourable, although the season was rather later than usual.

"There were many complaints of poor germination of turnip seed, and drought later on was trying to this and all other classes of roots, which has reduced the general yield. A few correspondents speak of excellent returns.

"Mangels have had about the same experience as turnips.

"Sugar beets have been relatively the best of the root crops. The yield per acre has been good, and as a rule the percentage of sugar was high.

"Correspondents have little to say about carrots, which are still dwindling in acreage as a field crop."

MISCELLANEOUS.

Flax.—This crop has fallen off greatly in acreage during the past three years. It is ranked as having been from fair to good in yield and general character.

Tobacco.—The August bulletin said: "Reports regarding tobacco vary, but the general impression given is that the growing crop is not up to average condition, the plants having been held back by the hot, dry weather of the past month. Cutworms also did considerable injury to some fields. However, there is yet time for the crop to improve."

The December bulletin contained the following: "This crop, although injured by drought in the mid-season, had picked up nicely when caught by frost when ready for harvesting. Injury in some of the fields is placed as high as fifty per cent. Both Burley and Virginia suffered about equally."

Fall Plowing.—November reports were to the following effect: "Dry weather hardening the soil early in the fall, and the lateness of the corn crop, helped to delay plowing, but the exceedingly favourable weather of the first week of November enabled farmers to catch up, and fully an average acreage of land has been turned under, with the prospect of still more plowing being done should the open weather continue."

Threshing and Marketing.—The December bulletin said: "Threshing has been practically completed for some time except in a few tardy cases. Marketing, however, has been slow, as prices have not been encouraging to holders, and more and more a large portion of the grain and other field products is being fed on the farm. A rise in the prices of grain, hay, etc., however, would doubtless cause considerable activity in marketing."

Farm Improvements.—Not many new buildings were erected during the year owing to the high value placed upon material and labour, but about the usual amount of repairing was done. The low price of farm produce and the high price of tile and wire prevented as much tile draining and fencing being done as some farmers desired.

FRUIT.

Early reports concerning fruit conditions were thus summarized in the April bulletin: "The chief winter injury to orchards has been the girdling of many young trees by rabbits and field mice. Little or no damage was done by ice storms, which were a great source of injury in the preceding year. Fruit buds

appear to have come through the winter unharmed, although a Lincoln correspondent complains of injury to grapevines. Several returns speak of old orchards dying through neglect in different parts of the Province. Strawberries are not looking well where mulching was neglected."

The May bulletin said: "Orchards were very backward in leaf and bloom when correspondents reported, but were regarded as otherwise being in good condition where properly cared for. In a few sections injury to cherry blossoms by frost was reported, but taken all together orchards have suffered very little in this regard, and a fair general yield of all varieties of tree fruits is expected. Bush fruits are looking promising on the whole, although there are some reports of raspberry canes being nipped at the top by frost. Strawberries are looking unusually well where properly handled, mulching proving to be of great value for winter protection. Picking will be a week or two late. Rabbits and field mice, as is usual during a winter of deep snow, did injury to young fruit trees in a number of counties."

The following survey of fruit conditions appeared in the August bulletin:

"The season has not been so generous a one for fruit as that of last year.

"Early apples have been shy in bearing this year, but there will be a fair supply of the fall varieties. Spies and other standard winter sorts, as usual, are not plentiful. Spraying is not sufficiently practised, and there are many scabby apples. Owing to the long drouth there has been a heavy drop of fruit all summer.

"Pears on the whole will be light in yield. Some correspondents name the Bartlett especially in this regard.

"Plums have not been yielding largely, although a few growers claim good returns.

"The yield of peaches will be fair only, although some orchards are showing generously.

"Cherries yielded heavily, and were of good quality, but the market was not able to take care of all of them and prices were low as a result.

"Grapes are not so heavy on the vines as usual, the yield being placed by a correspondent at about 80 per cent. of an average.

"Strawberries were a medium yield, but suffered from drouth at the time of ripening.

"Raspberries were a comparatively poor crop. The tops winter-killed in many cases, and the hot, dry weather at ripening also diminished the yield."

The December bulletin observed: "Orchards are in the usual condition—satisfactory where sprayed and otherwise cared for, but discouraging where neglected. Injury to apples from the side-worm and codling moth resulted in the culling of much fruit. The San Jose scale was complained of as doing injury to some trees. There is a relatively better supply of Spies and other late varieties than there was of the earlier sorts. Peaches and grapes were also in fair quantities, but were unusually late in ripening."

LIVE STOCK AND THE DAIRY.

Spring conditions of live stock were thus dealt with in the April bulletin:

"All classes of live stock are in good general condition, notwithstanding the unusually cold winter, as there was in most cases a sufficiency of fodder and plenty of bedding. There has been no disease of a serious character reported.

"Horses were never more ready for spring work. Fewer colts are reported on hand than in former years. There is but little demand for common animals, but many sales of good farm horses have been reported at satisfactory prices.

"About the usual number of cattle are on hand, but during the last few months dairy cows appear to have the call, judging by the comparatively good prices paid for them. Several correspondents state that too many beef animals are being marketed in an unfinished condition.

"Swine are receiving much attention, largely because of the new grading regulations. Brood sows of bacon type are in strong demand, and little pigs command good prices. As one correspondent puts it: 'The past year has seen a great improvement in the type of hogs being raised.' It is reported, however, that the cold weather of the latter part of the winter caused an unusual mortality among many litters.

"Sheep are decreasing in numbers, and there seems to be a feeling of disappointment amongst many raisers. However, ewes seemed to be able to bring their offspring through at and after lambing with fewer losses than in the case of sows."

The April bulletin added the following regarding fodder supplies:

"The generous portion of corn on hand has helped out the fodder situation nicely, together with the good supply of hay, straw and other roughage. As usual, the silo has shown itself to be a most valuable adjunct to the farm.

"Grain has been in fair quantity, but some feeders have augmented the rationing with western oats and wheat screenings and a limited use of mill feeds.

"Hay has been disposed of freely at prices lower than for years, ranging from $8 to $16 a ton more recently, in most cases selling within a dollar or so around $10.

"The long and very cold winter made a heavier demand upon straw for both feed and bedding than was expected, but there has been a sufficiency on most farms. Taken on the whole, live stock have not suffered much for lack of either feed or bedding."

The May bulletin said: "No serious cases of disease amongst live stock have been reported, except in the case of swine, where heavy losses have taken place in spring litters, and many hairless little pigs have been born. Sheep have done better with their young, but prices for wool have been discouraging to growers. Horses have been in splendid condition for spring activities, and the cool weather favoured work in the field, although the moist soil made going a little heavier than usual. Cattle, although long confined on account of the late spring, are fast getting into condition on the grass."

Fodder conditions in May were thus described: "The large supply of fodders on hand in November of the preceding year was nearly all required to meet the conditions of the long and severe winter, and the late, wet, cold spring which kept cattle and other live stock off the grass until a much later date than usual. In most cases farmers have been able to pull through, owing to the generous store of hay, straw, ensilage and other coarse feeds on hand, but grain and other concentrates had to be carefully doled, and some farmers had to purchase oats or other grain and meals to piece out their supplies. Happily there was an abundance of straw for bedding, which kept the stock warm and comfortable and helped to conserve feed. There is a small surplus of hay in many quarters, ranging in price from $12 to $14 a ton in the older counties to $20 a ton in the northern districts. Wheat, oats, barley and other grains are comparatively scarce, and will nearly all be needed at home. A scarcity of good seed oats has

been mentioned by several correspondents. Ensilage has held out well, and has again served to save the feeding situation. Some farmers have enough on hand to last well into the summer."

Pastures and live stock were referred to as follows in the August bulletin:

"Pastures have been failing since the middle of July, owing to the hot weather and the light rainfall. During the last week or two many farmers had to give more supplementary feeding to their live stock, as beef animals on grass were not making flesh, and dairy cows were falling off markedly in milk.

"There will not be as much grain on hand as last year, but there will be more hay. There will also be a fair quantity of straw, ensilage and other roughage, and the prospects are that with careful feeding there will be plenty of fodder to carry live stock nicely through the winter.

"Dairy products have fallen off considerably in quantity during August as a result of the poor pastures."

The December bulletin had the following to say of live stock: "Pastures were good early in the fall, but turned poor in October, and considerable supplementary feeding was done by some to keep cattle and other live stock in proper condition. Fattening of cattle has been somewhat slower than usual this season. A good many store and short-keep animals changed hands precious to stabling, and a number of feeders were brought into some counties for carrying over. The marketing of finished cattle has been very slow, but hogs have been regularly offered. Beef prices show a wide range. Best butchers' stock ran from six to eight cents a pound, and stockers from four to five cents, while some inferior cattle brought only from two to three cents a pound. Some dry cows as canners were turned off at prices ranging from $10 to $15 each, but good dairy animals were in good demand at satisfactory prices."

"Most farmers will have a sufficiency of fodder for wintering live stock," said the December bulletin: "The yield of hay was one of the largest in recent years, and straw, although rather short in length, is of good feeding quality. The yield of corn has not been so large as usual, either for the cob or for the silo, and is not of the best quality, but will make a good backing for other fodders. Hay has been selling at from $6.50 to $8 a ton in the barn, and at from $10 to $18 on the market, chiefly around $14. Farmers as a rule feed most of their grain, but some are purchasing mill feeds and other concentrates for finishing off at the following prices: Shorts, $33 to $35 a ton; bran, $28 to $30; oil cake, $50; gluten meal, $30 to $43; screenings, $23 to $30."

Dairy conditions in the Province were thus summed up in the December bulletin: "In the latter part of the fall, cows on pasture were falling off in milk, but most dairymen helped to maintain the flow by supplementary feed. Generally speaking, owners of cows have no reason to complain of the season's experience. Butter has paid better relatively than cheese, although the latter found more encouraging prices than in the preceding year. The general quality of dairy products was up to the standard. Prices for milk showing 3.5 per cent. butterfat ranged from $1.80 to $2.10 a cwt. Holsteins are most favoured for milk supply, particularly in cheese sections; Shorthorns and their grades come next, largely for general utility, followed by Ayrshires and Jerseys for richness of milk."

Poultry.—This branch of farming has paid as well as any other in the opinion of a number of correspondents. Others think that farmers keep their fowl in so haphazard a way as to render profits uncertain. Eggs seem to have paid better than dressed poultry as a general rule. One return placed the net profit of poultry at twenty per cent. Another claimed 100 per cent. profit, not

counting labour. Still another estimated the average gain per hen for the year at a dollar. Several correspondents stated that more attention is being given to the breeding, housing and feeding of farm poultry.

STATISTICS OF LIVE STOCK.

STATISTICS.—The following table gives the total number and value of the several classes of live stock and poultry on hand June 15, 1923, together with live stock sold or slaughtered in the year preceding that date.

Live Stock.	On hand, June 15, 1923.		Sold or slaughtered in year ending June 15, 1923.	
	No.	Value.	No.	Value.
		$		$
Horses (all ages)	673,371	74,542,351	49,312	5,854,847
Cattle:				
Milch cows	1,265,965	69,938,194	848,302	31,391,619
Other cattle	1,572,122	39,528,872		
Sheep and Lambs	907,673	6,597,087	602,111	4,591,893
Swine (all ages)	1,734,734	19,018,668	1,999,464	38,745,130
Poultry (all kinds)	15,203,384	12,401,083	6,799,489	8,157,644
Totals:—				
1923		222,026,255		88,741,133
1922		213,840,118		90,475,235
1921		218,123,685		97,022,845
1920		326,737,337		152,213,847
1919		339,607,932		149,727,250
1918		324,107,476		126,742,038
1917		289,676,977		114,740,881
1916		263,869,539		99,159,081
1915		254,982,332		93,762,223
1914		250,870,078		93,017,235
1913		237,591,885		89,651,016

The values for the several classes of horses on hand June 15th, 1923, were as follows: Stallions, $1,021,145; mares, $40,396,880; geldings, $29,957,943; colts and fillies, $3,166,383.

The values for the several classes of "other cattle" on hand were as follows: Bulls, $4,652,490; calves, $7,542,584; steers, $9,008,937; all other cattle (except milch cows), $18,324,861.

The values for sheep on hand were $3,847,937; lambs, $2,749,150.

The values for brood sows on hand were $6,971,321; all other pigs, $12,047,347.

The values for the several classes of poultry on hand were as follows: Turkeys, $908,843; geese, $832,801; ducks, $393,964; other fowls, $10,265,475.

VALUES PER HEAD OF LIVE STOCK AND POULTRY ON HAND.

Live Stock.	1923	1922	1921	1920	1915	1910	1905	1900
	$	$	$	$	$	$	$	$
Horses (all ages)...	111	109	109	127	139	128	110	76
Cattle:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Milch cows.....	55.24	52.68	51.56	85.84	60.83	40.76	35.06	31.01
Other cattle.....	25.14	24.25	24.77	44.67	32.18	22.43	21.29	17.93
Sheep and Lambs..	7.27	6.70	7.59	14.34	7.05	5.75	4.68	4.29
Swine (all ages)...	10.96	10.65	12.28	19.98	9.93	8.50	6.44	5.42
Poultry (all kinds).	.82	.88	1.97	1.07	.54	.43	.34	.29

The values per head of the various classes on hand June 15th, 1923, were as follows:

Horses: Stallions, $287; mares, $115.99; geldings, $111.62; colts and fillies, $59.56.

Cattle: Bulls, $67.13; calves, $12.04; steers, $39.94; all other cattle, $28.16.

Sheep and lambs: Sheep, $8.28; lambs, $6.20.

Swine: Brood sows, $31.05; all other pigs, $7.98.

Poultry: Turkeys, $2.49; geese, $1.78; ducks, 88c; all other fowls, 74c.

VALUES PER HEAD OF LIVE STOCK AND POULTRY SOLD OR SLAUGHTERED.

Live Stock.	1923	1922	1921	1920	1915	1910	1905	1900
	$	$	$	$	$	$	$	$
Horses (all ages)...	119	123	127	139	146	136	119	79
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Cattle.....	37.01	36.93	39.71	62.19	49.90	37.44	36.23	32.12
Sheep and Lambs..	7.63	7.03	7.22	12.42	6.72	5.36	4.28	3.64
Swine (all ages)...	19.38	20.51	20.32	30.50	14.98	12.49	9.79	7.69
Poultry (all kinds).	1.20	1.16	1.23	1.28	.62	.51	.39	.37

FARM LABOUR AND WAGES.

"Skilled farm workers are hard to find," said the April bulletin, "and even the more ordinary kind are not easily procurable. Several correspondents point out that farmers cannot afford to pay wages to match those of the urban workshops and get a living for themselves. In short, the rural labour situation appears to be more unsatisfactory than it has been since the war. Road building and other public works have also contributed to entice men from farm work. Some correspondents, however, are hoping that the arrival of more or less experienced British farm labourers will relieve the situation somewhat. Wages for fairly competent help ranges from $30 to $40 a month, with board; married men, $500 to $600 a year, with house, milk, etc."

May conditions were thus described: "There is yet a decided scarcity of farm help, and it looks as if the prevailing rate of wages this year will about equal that paid last year. Agricultural representatives have had more applications for the services of old country farm hands than they have been able to fill. Some of the new arrivals from Great Britain are giving good satisfaction, while others are regarded as too inexperienced. It is almost impossible to secure girls for domestic service on the farm."

The following appeared in the August bulletin: "Farm labour has been as scarce as ever, making it difficult for the crops to be properly harvested, and necessitating much exchange of labour between neighbours. In many cases the women of the farm had to come to the aid of the men and assist in gathering the field crops. Experienced farm hands are particularly hard to procure. The high wages paid on public works and in factories make it difficult to retain men on the farm. For this reason many farms are being run at about half rate, with the result that crop production is much below what it might be. Wages by the day at harvesting ranged from $2 to $3, with board chiefly around $2.50, and for the active season at from $30 to $50 a month, in the majority of cases from $35 to $40."

The December bulletin said: "Farm labourers are reported to be fewer than are needed, more especially those with experience. Some correspondents ascribe this scarcity to the demand for men on highway construction and other public works, in lumber camps, and also to the attraction of town life with high wages. It is also pointed out that many farmers can give employment to extra hands only at harvesting and other rush times. Domestic servants on the farm are almost impossible to procure. The general opinion is that wages for agricultural work have about reached the crest, and that many farmers cannot afford to employ men at the rates now being asked, although some correspondents state that farm labourers would find it difficult to live in comfort on lower wages under present economic conditions."

TEMPERATURE OF 1923.

TABLE I.—Showing for each month the highest, lowest, mean daily range and mean temperature at the principal stations in Ontario for 1923; also the annual mean for each station.

Months.	Southampton.	Chatham.	London.	Woodstock.	Stoney Creek.	Toronto.	Lindsay.	Beatrice.	Ottawa.	Montreal River.
	°	°	°	°	°	°	°	°	°	°
January:										
Highest	40.5	43.0	42.0	40.0	43.0	43.2	40.2	39.0	40.0	38.0
Lowest	—14.4	— 1.0	— 1.0	— 9.5	—13.0	—12.0	—24.0	—23.0	—17.0	—34.0
Daily range	15.5	11.5	15.0	12.8	16.3	15.9	20.6	20.1	16.6	30.9
Monthly mean	18.1	25.4	22.8	20.0	22.6	21.8	13.1	10.9	8.3	1.4
February:										
Highest	38.0	42.0	38.0	37.0	40.0	42.7	37.9	33.0	35.5	34.0
Lowest	— 9.7	— 2.0	— 7.0	— 5.5	— 3.0	— 5.4	—14.6	—28.0	—30.5	—42.0
Daily range	15.0	13.5	17.8	15.1	16.3	15.6	19.9	22.1	22.7	33.6
Monthly mean	14.7	20.5	17.4	15.0	19.4	18.8	12.1	8.2	17.6	0.9
March:										
Highest	45.8	53.0	53.0	51.0	55.0	50.7	43.5	44.0	48.0	47.0
Lowest	— 9.2	5.0	2.0	1.0	3.0	3.2	14.5	20.0	12.5	29.0
Daily range	16.0	16.0	19.9	15.2	17.2	16.9	22.0	22.7	17.7	31.0
Monthly mean	20.9	31.0	28.5	25.2	28.9	27.1	20.0	16.2	18.7	9.7
April:										
Highest	76.0	80.0	79.0	76.4	81.0	80.8	79.4	76.0	82.0	70.0
Lowest	— 3.7	6.0	0.0	1.8	5.0	5.2	— 5.9	— 9.0	— 1.5	—16.0
Daily range	16.8	23.5	22.7	17.4	17.7	17.3	17.1	21.5	19.1	29.7
Monthly mean	36.4	44.9	42.1	40.4	42.7	42.5	41.6	35.4	38.7	29.6
May:										
Highest	74.0	80.0	82.0	78.0	80.0	83.3	83.5	79.0	86.0	88.0
Lowest	25.6	27.0	26.0	26.4	28.0	26.9	22.0	22.0	26.5	20.0
Daily range	20.0	24.1	28.4	25.8	22.3	20.6	29.5	29.0	24.2	32.6
Monthly mean	46.4	52.7	52.9	50.1	48.8	51.6	51.1	48.4	53.2	46.8
June:										
Highest	87.2	99.0	98.0	91.0	96.0	95.6	93.6	88.0	95.0	95.0
Lowest	38.1	45.0	41.0	42.0	38.0	44.2	38.0	32.0	40.5	30.0
Daily range	18.9	26.0	26.4	19.7	21.9	20.9	25.5	26.6	23.4	32.1
Monthly mean	61.2	71.1	69.2	66.1	66.5	66.6	65.4	62.6	66.3	61.2
July:										
Highest	83.8	96.0	94.0	86.0	92.0	91.8	93.0	89.0	90.5	96.0
Lowest	48.8	51.0	47.0	46.7	48.0	51.0	40.0	37.0	48.5	32.0
Daily range	21.3	27.0	25.9	20.9	20.8	19.7	28.3	28.7	22.5	32.5
Monthly mean	64.5	71.2	69.7	67.1	67.7	69.0	68.4	65.1	67.6	62.1
August:										
Highest	83.2	95.0	93.0	86.0	92.0	89.8	90.3	88.0	89.0	85.0
Lowest	40.1	41.0	40.0	32.9	40.0	42.6	40.1	33.0	40.0	30.0
Daily range	19.1	20.1	26.6	22.2	23.1	21.1	27.4	26.3	23.9	29.7
Monthly mean	61.3	69.0	67.3	64.6	65.0	65.8	64.8	60.3	65.4	58.8
September:										
Highest	80.2	90.0	88.0	81.0	85.0	84.6	87.4	83.0	83.0	84.0
Lowest	33.6	34.0	31.0	33.8	30.0	37.4	32.6	29.0	33.7	29.0
Daily range	15.7	22.8	20.5	16.9	19.5	17.3	22.9	19.6	21.1	25.9
Monthly mean	58.7	63.4	62.0	59.6	58.4	60.7	60.1	55.5	60.4	54.4
October:										
Highest	74.8	80.0	74.0	73.0	76.0	68.8	72.1	70.1	74.0	72.0
Lowest	28.6	27.0	23.0	25.0	25.0	31.8	24.0	19.0	23.0	16.0
Daily range	16.1	23.8	21.7	18.5	21.1	16.4	22.8	20.1	22.0	25.2
Monthly mean	47.1	50.8	47.3	47.7	47.0	48.8	45.8	43.0	48.2	41.8
November:										
Highest	57.5	63.0	56.0	55.0	57.0	57.9	56.0	49.0	58.5	62.0
Lowest	22.6	21.0	23.0	20.0	20.0	21.8	12.6	12.0	19.5	7.0
Daily range	13.0	15.9	13.0	11.8	12.2	12.1	14.0	14.3	12.2	18.1
Monthly mean	37.6	39.2	37.9	36.5	39.3	39.0	35.1	32.4	35.8	30.9
December:										
Highest	50.0	56.0	52.0	47.5	55.0	53.1	50.2	46.0	51.5	44.0
Lowest	19.3	20.0	11.0	9.0	10.0	18.4	7.1	— 2.0	— 4.0	— 7.0
Daily range	8.4	12.3	11.3	8.4	10.5	10.3	12.8	11.5	11.1	13.8
Monthly mean	35.0	37.6	34.6	34.2	37.2	36.1	31.2	29.5	29.4	24.7
Annual mean	41.8	48.1	46.0	43.5	45.3	45.6	42.4	39.0	42.5	35.2

AVERAGE TEMPERATURE FOR FORTY-TWO YEARS.

TABLE II.—Showing for each month the monthly average for the highest, lowest, mean daily range and mean temperature at the principal stations in Ontario, derived from the forty-two years, 1882-1923; also the annual mean at each station for the same period.

Month.	Southampton.	Chatham.	London.	Woodstock.	Stoney Creek.	Toronto.	Lindsay.	Beatrice.	Ottawa.	Montreal River.
	°	°	°	°	°	°	°	°	°	°
January:										
Highest	44.4	46.1	46.0	45.8	49.6	45.3	41.5	41.0	40.0	37.9
Lowest	— 7.0	— 7.9	— 9.3	—10.4	— 4.8	— 7.2	—20.0	—27.2	—21.2	—33.3
Daily range	14.6	12.2	15.1	15.9	14.4	14.6	18.1	20.5	18.0	23.4
Monthly mean	20.8	21.8	21.5	20.2	24.7	22.3	15.8	14.0	11.2	6.6
February:										
Highest	43.8	48.4	46.4	45.3	48.0	45.1	41.8	41.7	39.9	40.7
Lowest	—11.5	— 9.4	—10.8	—11.3	— 6.1	— 7.6	—18.1	—27.3	—20.7	—33.8
Daily range	16.8	13.9	16.8	16.7	15.3	15.0	19.7	22.2	18.9	23.7
Monthly mean	18.7	20.6	20.3	19.2	22.6	21.2	15.4	13.5	12.4	9.3
March:										
Highest	54.8	59.5	59.8	57.3	60.4	57.0	52.9	51.5	49.8	51.5
Lowest	— 2.3	0.6	0.4	— 0.3	5.4	4.3	— 6.5	—13.0	— 8.2	—22.6
Daily range	17.0	13.8	17.9	17.2	15.4	14.9	18.7	21.2	17.7	25.2
Monthly mean	27.1	29.6	30.2	28.4	32.5	30.1	25.7	23.7	24.4	20.5
April:										
Highest	72.7	76.9	76.3	74.3	76.7	71.2	74.2	71.3	73.5	72.9
Lowest	15.9	18.6	18.1	17.2	20.2	20.8	13.9	10.5	15.1	7.0
Daily range	17.7	18.2	20.8	20.0	17.4	17.0	21.1	21.3	19.4	26.3
Monthly mean	40.5	43.9	43.4	42.3	44.2	42.9	41.7	39.5	41.4	37.2
May:										
Highest	80.1	83.2	83.4	80.8	84.7	80.4	83.1	81.3	83.2	84.7
Lowest	28.4	29.7	29.3	29.1	33.0	32.0	28.0	26.6	31.1	19.5
Daily range	19.6	21.1	23.1	21.9	20.3	19.3	24.1	23.2	22.1	26.1
Monthly mean	51.1	55.5	55.5	53.9	54.8	54.1	54.1	52.3	55.1	51.9
June:										
Highest	85.3	89.0	89.1	86.6	91.2	89.3	88.9	86.9	88.1	89.9
Lowest	37.5	38.4	38.2	38.5	41.6	42.4	38.5	35.7	41.6	33.7
Daily range	19.9	21.9	23.7	22.5	21.3	20.4	24.8	24.3	21.4	26.9
Monthly mean	60.7	65.1	65.1	63.5	65.4	64.2	63.7	62.3	64.7	61.9
July:										
Highest	87.4	92.8	92.5	89.6	92.5	91.5	91.8	89.5	91.3	92.0
Lowest	44.1	44.4	44.2	44.6	48.0	48.9	44.1	42.6	48.2	40.5
Daily range	20.2	22.1	23.4	22.7	21.5	20.5	24.7	23.4	20.7	25.4
Monthly mean	66.3	69.6	69.5	67.8	71.4	69.4	68.1	66.7	69.0	65.8
August:										
Highest	86.0	90.9	91.0	88.4	93.0	89.2	89.9	87.9	88.9	88.5
Lowest	41.8	42.8	41.0	41.5	45.6	46.3	40.4	38.1	43.7	37.4
Daily range	18.2	22.5	23.7	23.5	21.4	22.0	24.3	23.1	20.8	24.2
Monthly mean	64.6	66.7	66.8	65.1	68.9	66.0	65.5	64.2	66.0	62.7
September:										
Highest	84.0	87.7	87.2	85.1	89.7	85.6	86.1	83.6	84.5	83.9
Lowest	34.5	34.8	32.2	32.1	36.2	36.7	31.7	30.5	33.4	29.4
Daily range	18.2	19.8	22.6	21.9	20.7	18.9	23.1	23.6	20.5	23.0
Monthly mean	59.2	61.5	60.8	59.2	62.7	60.7	58.5	57.6	58.4	55.6
October:										
Highest	74.3	76.4	76.2	74.4	77.6	73.7	74.3	72.3	71.9	73.1
Lowest	26.1	25.9	24.2	24.2	26.7	27.1	21.9	21.5	24.6	18.3
Daily range	16.1	17.1	20.2	19.1	18.9	16.5	19.8	18.8	17.3	19.4
Monthly mean	48.3	49.7	48.6	47.4	50.7	48.9	46.4	45.9	46.1	43.4
November:										
Highest	60.8	62.9	62.0	61.0	64.7	60.3	59.1	58.2	57.8	55.3
Lowest	14.8	14.7	13.7	12.5	17.6	16.1	6.8	7.0	7.9	0.1
Daily range	13.2	12.5	14.6	13.5	14.0	12.8	15.0	14.5	12.2	14.7
Monthly mean	36.8	37.6	36.9	35.7	39.4	37.6	33.8	33.2	32.7	29.5
December:										
Highest	49.4	49.6	52.7	49.3	53.6	49.0	43.3	44.9	43.1	43.4
Lowest	1.1	0.8	— 1.5	— 2.5	— 0.2	0.0	—12.5	—14.7	—14.8	—24.5
Daily range	12.6	10.7	13.5	13.6	12.8	12.7	15.8	17.2	14.9	18.8
Monthly mean	26.9	26.9	26.7	25.3	29.2	27.6	21.5	20.6	17.9	14.2
Annual mean	43.4	45.7	45.4	44.0	47.2	45.4	42.5	41.1	41.6	38.2

RAIN AND SNOW.

TABLE III.—Summary of the total fall of rain and snow, and the number of days on which rain and snow fell in Ontario during 1923, at stations reporting the whole year, and the average for the Province.

Station.	Rain		Snow.		Station.	Rain		Snow.	
	Inches	Days	Inches	Days		Inches	Days	Inches	Days
ALGOMA:					OXFORD:				
Biscotasing	15.63	70	75.9	55	Woodstock	27.84	104	49.0	58
Kapuskasing	17.81	58	46.1	26	PARRY SOUND:				
Steep Hill Falls	22.91	86	115.6	73	Emsdale	23.55	68	90.8	50
BRANT:					Parry Sound	22.26	86	107.9	66
Brantford	26.88	95	44.3	34	PEEL:				
Paris	32.40	102	62.0	38	Alton	24.51	74	82.8	48
BRUCE:					Mono Mills	24.94	84	85.4	46
Southampton	20.72	97	96.3	69	PERTH:				
Walkerton	22.13	58	117.0	38	Stratford	36.63	95	97.5	45
Wiarton	19.98	49	165.0	44	PETERBOROUGH:				
CARLETON:					Aspley	28.59	89	86.6	50
Ottawa	25.08	95	102.7	55	Peterborough	21.64	86	88.9	58
DUNDAS:					PRINCE EDWARD:				
Morrisburg	27.38	70	59.5	31	Bloomfield	22.73	70	93.1	35
ELGIN:					RAINY RIVER:				
Port Stanley	21.26	98	58.2	64	Fort Frances	17.29	63	39.0	30
ESSEX:					Kenora	17.28	32	77.0	33
Harrow	24.35	67	34.4	20	Mine Centre	18.57	69	69.5	56
Leamington	24.66	60	24.0	10	Sioux Lookout	18.39	53	44.5	19
FRONTENAC:					RENFREW:				
Kingston	21.83	97	36.1	46	Clontarf	18.24	63	86.5	35
GREY:					Pembroke	20.21	78	106.2	46
Eugenia	23.47	63	117.5	45	Renfrew	22.25	82	62.8	31
Meaford	19.88	73	114.5	53	SIMCOE:				
Owen Sound	12.44	37	113.3	47	Beeton	17.87	56	67.5	36
HALTON:					SUDBURY:				
Georgetown	23.93	77	38.8	33	Chapleau	14.80	71	93.0	35
HASTINGS:					Sudbury	17.01	62	93.8	45
Queensboro'	18.92	73	112.0	21	THUNDER BAY:				
Trenton	23.69	74	81.6	34	Kakabeka Falls	15.48	65	71.5	39
HURON:					Port Arthur	14.63	63	29.6	28
Clinton	29.34	76	29.2	41	Schreiber	16.37	57	96.5	44
Goderich	26.00	93	47.3	32	VICTORIA:				
KENT:					Fenelon Falls	24.67	102	69.0	53
Chatham	22.34	61	44.5	17	Kinmount	25.06	80	82.5	38
LEEDS:					Lindsay	18.60	87	87.9	58
Brockville	23.82	44	51.5	13	WATERLOO:				
LINCOLN:					Kitchener	27.97	82	48.8	29
Grimsby	24.23	91	58.6	46	WELLAND:				
St. Catharines	21.58	93	40.0	40	Welland	25.55	98	45.0	34
MIDDLESEX:					WELLINGTON:				
London	23.43	93	103.2	50	Guelph	29.89	76	64.5	37
Lucan	27.66	105	101.5	51	Mount Forest	29.40	94	102.1	64
Wilton Grove	30.89	45	54.5	14	WENTWORTH:				
MUSKOKA:					Stoney Creek	15.65	73	53.0	22
Beatrice	20.09	58	110.0	37	YORK:				
South Falls	26.71	76	120.5	52	Toronto	26.43	100	71.1	65
NIPISSING:					Wexford	23.18	82	45.8	27
Algonquin Park	25.16	66	98.5	47					
Iroquois Falls	19.74	79	85.5	64					
Montreal River	19.18	88	114.5	63	Average for the Province: 1923	22.43	76	74.5	39
NORFOLK:					1922	22.65	60	63.2	49
Port Dover	31.91	114	59.7	27	1921	25.52	79	54.0	33
Simcoe	27.91	102	59.5	31	1882–1923	24.27	73	72.1	39
NORTHUMBERLAND:									
Healy Falls	19.41	78	60.6	37					

RAIN AND SNOW.

TABLE IV.—Monthly summary of inches of rain and snow in precipitation in the several districts in Ontario in 1923, also the average derived from the forty-two years, 1882–1923.

Months.	West and Southwest.		North and Northwest.		Centre.		East and Northeast.		The Province.	
	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.
1923	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
January	0.49	26.1	0.02	11.8	0.40	21.8	0.47	23.8	0.35	20.9
February	0.32	15.1	0.00	12.8	0.11	10.3	0.02	13.6	0.11	12.9
March	1.56	11.5	0.12	20.2	0.90	18.4	0.62	22.1	0.80	18.1
April	2.08	3.5	1.16	9.7	2.06	3.9	1.94	2.0	1.81	4.8
May	3.29	5.4	1.47	2.5	3.69	1.9	2.94	0.8	2.85	2.6
June	2.60	.....	3.02	.....	3.08	.....	3.83	.....	3.13	.....
July	2.25	.....	3.10	.....	1.49	.....	1.10	.....	1.99	.....
August	2.62	.....	3.70	.....	2.45	.....	2.24	.....	2.75	.....
September	3.40	.....	2.66	0.4	2.35	.....	1.75	1.2	2.54	0.4
October	1.71	0.8	1.63	5.6	1.59	0.4	2.68	1.0	1.90	2.0
November	2.46	2.1	0.72	6.6	2.68	2.9	2.79	5.3	2.16	4.2
December	3.16	8.9	0.82	10.7	2.43	7.2	1.76	7.6	2.04	8.6
The year	25.94	73.4	18.42	80.3	23.23	66.8	22.14	77.4	22.43	74.5
1882–1923										
January	1.13	15.8	0.60	23.4	1.00	16.6	0.88	19.8	0.90	18.9
February	1.09	13.6	0.39	19.0	0.85	14.0	0.58	16.5	0.73	15.8
March	1.41	8.5	0.90	13.1	1.31	9.6	1.16	11.3	1.20	10.6
April	2.14	2.0	1.58	4.0	2.06	2.8	1.73	3.3	1.88	3.0
May	3.09	0.1	2.56	0.1	2.78	S	2.69	0.1	2.78	0.1
June	2.92	.....	2.66	.....	2.75	.....	2.80	.....	2.78	.....
July	2.69	.....	2.93	.....	2.80	.....	2.78	.....	2.80	.....
August	2.76	.....	2.85	.....	2.41	.....	2.65	.....	2.67	.....
September	2.61	.....	3.04	.....	2.33	.....	2.51	.....	2.62	.....
October	2.75	0.7	2.87	2.2	2.58	0.5	2.55	0.9	2.69	1.1
November	2.22	5.2	1.78	11.5	1.94	5.0	1.79	7.4	1.93	7.3
December	2.07	14.1	0.80	21.0	1.22	11.8	1.08	14.3	1.29	15.3
The year	26.88	60.0	22.96	94.3	24.03	60.3	23.20	73.6	24.27	72.1

SUNSHINE.

TABLE V.—Monthly summary of bright sunshine at the principal stations in Ontario for 1923, showing the number of hours the sun was above the horizon, the hours of registered sunshine, the total for the year, and the average derived from the forty-two years, 1882–1923.

Months.	Sun above horizon.	Woodstock.	Toronto.	Lindsay.	Kingston.	Ottawa.	Average of five stations.		
							1923	1922	1882–1923
1923	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
January	285.7	53.3	54.9	58.4	80.8	106.9	70.9	109.4	.....
February	291.4	108.9	96.0	86.7	111.0	118.8	104.3	100.4	.....
March	369.9	126.4	152.5	119.4	146.5	152.4	139.4	162.6	.....
April	406.4	175.3	183.1	167.3	181.9	201.5	181.8	181.3	.....
May	461.1	288.4	285.7	245.7	257.4	280.5	271.5	236.0	.....
June	465.7	278.3	277.8	230.5	244.7	246.6	255.6	228.5	.....
July	470.9	275.4	284.3	243.7	279.1	269.5	270.4	298.8	.....
August	434.5	259.4	284.3	242.4	269.3	274.1	265.9	256.0	.....
September	376.3	170.4	192.0	147.4	143.0	179.7	166.5	218.0	.....
October	340 2	177.2	173.0	125.6	162.2	158.9	159.4	160.8	.....
November	286.9	88.8	81.9	66.1	68.7	58.0	72.7	60.7	.....
December	274.3	61.4	51.6	39.5	68.3	72.5	58.7	78.8	.....
The year	4,463.3	2,063.2	2,117.1	1,772.7	2,012.9	2,119.4	2,017.1	2,091.3	.....
1882–1923									
January	.....	66.5	79.1	76.1	79.5	89.4	.....	.....	78.1
February	.....	91.6	107.8	100.6	109.6	112.0	.....	.....	104.3
March	.....	127.3	154.6	145.9	146.7	154.1	.....	.....	145.7
April	.....	167.8	187.4	178.5	180.0	190.8	.....	.....	180.9
May	.....	214.0	225.5	208.4	210.7	213.7	.....	.....	214.5
June	.....	251.8	262.5	236.1	249.9	240.3	.....	.....	248.1
July	.....	274.5	284.5	252.9	271.3	259.5	.....	.....	268.6
August	.....	235.5	251.8	225.0	248.0	242.3	.....	.....	240.5
September	.....	177.8	208.2	184.7	184.7	176.8	.....	.....	186.4
October	.....	145.1	152.4	127.5	138.7	133.0	.....	.....	139.4
November	.....	76.9	82.5	69.6	78.8	82.3	.....	.....	78.0
December	.....	55.6	65.8	56.4	68.5	66.3	.....	.....	62.5
The year	.....	1,884.4	2,062.1	1,861.7	1,966.4	1,960.5	.....	.....	1,947.0

RURAL AREA ASSESSED.

TABLE VI.—Showing by County Municipalities the rural area of Ontario as returned by Municipal Assessors for 1923, also the comparative totals for the Province of the five years, 1919–1923. Only townships under municipal organization are included.

Counties and Districts.	Acres of assessed land.	Acres cleared.	Acres of woodland.	Acres of slash land.	Acres of swamp, marsh or waste land.	Per cent. cleared.
Algoma	343,644	63,025	208,784	25,151	46,684	18.34
Brant	215,293	179,075	10,366	16,185	9,667	83.18
Bruce	928,317	581,386	74,310	149,243	123,378	62.63
Carleton	562,967	386,669	61,598	79,169	35,531	68.68
*Cochrane	120,167	12,450	78,583	19,211	9,923	10.36
Dufferin	356,861	283,991	17,946	25,537	29,387	79.58
Dundas	234,770	182,378	20,249	28,721	3,422	77.68
Durham	369,645	309,049	20,019	8,121	32,456	83.61
Elgin	436,094	365,175	39,928	26,809	4,182	83.74
Essex	419,271	370,584	14,425	25,737	8,525	88.39
Frontenac	686,017	252,419	82,746	174,865	175,987	36.79
Glengarry	288,320	201,732	54,818	18,984	12,786	69.97
Grenville	271,469	187,381	33,197	16,849	34,042	69.02
Grey	1,065,759	707,247	101,896	95,492	161,124	66.36
Haldimand	281,973	245,721	26,708	7,508	2,036	87.14
Haliburton	584,090	50,086	403,423	62,003	68,578	8.58
Halton	224,838	175,755	16,193	26,047	6,843	78.17
Hastings	1,084,929	430,072	206,520	270,170	178,167	39.64
Huron	797,903	671,016	45,963	31,810	49,114	84.10
Kenora	75,930	7,851	19,985	31,134	16,960	10.34
Kent	568,989	491,388	23,703	41,464	12,434	86.36
Lambton	660,050	530,751	69,338	46,549	13,412	80.41
Lanark	662,935	336,796	169,797	38,969	117,373	50.80
Leeds	476,977	279,073	104,617	38,405	54,882	58.51
Lennox and Addington	440,819	254,621	100,300	38,579	47,319	57.76
Lincoln	189,280	164,034	13,703	9,928	1,615	86.66
Manitoulin	330,164	48,817	37,578	92,764	151,005	14.79
Middlesex	757,043	675,286	52,359	16,654	12,744	89.20
Muskoka	599,180	72,168	371,585	68,096	87,331	12.04
Nipissing	331,454	72,250	175,450	20,920	62,834	21.80
Norfolk	397,290	284,232	60,718	30,267	22,073	71.54
Northumberland	438,316	352,061	39,047	18,740	28,468	80.32
Ontario	508,092	385,257	23,965	55,440	43,430	75.82
Oxford	471,721	401,329	31,547	21,758	17,087	85.08
Parry Sound	654,612	91,706	357,606	112,327	92,973	14.01
Peel	287,978	262,187	8,723	8,203	8,865	91.04
Perth	518,463	459,156	29,861	21,769	7,677	88.56
Peterborough	579,091	270,754	127,710	117,583	63,044	46.76
Prescott	293,499	221,173	25,795	38,164	8,367	75.36
Prince Edward	234,664	198,896	17,688	4,046	14,034	84.76
Rainy River	351,243	47,000	189,757	60,136	54,350	13.38
Renfrew	1,080,013	391,876	396,091	178,656	113,390	36.28
Russell	250,293	165,561	12,237	70,315	2,180	66.15
Simcoe	966,050	690,396	79,243	141,600	54,811	71.47
Stormont	247,738	166,162	31,549	36,574	13,453	67.07
Sudbury	378,025	69,616	136,936	50,869	120,604	18.42
Thunder Bay	474,987	47,653	317,059	65,633	44,642	10.03
Timiskaming	300,821	65,195	101,360	95,667	38,599	21.67
Victoria	597,662	293,435	23,377	186,742	94,108	49.10
Waterloo	307,228	255,440	31,019	5,443	15,326	83.14
Welland	222,518	183,663	14,648	13,291	10,916	82.54
Wellington	625,857	505,339	32,578	15,426	72,514	80.74
Wentworth	268,535	213,549	14,581	13,453	26,952	79.52
York	533,673	444,581	24,048	30,799	34,245	83.31
The Province:						
1923	25,353,517	15,054,463	4,783,230	2,943,975	2,571,849	59.38
1922	25,393,470	15,015,659	4,794,994	2,936,171	2,646,646	59.13
1921	25,266,826	15,011,254	4,836,196	2,859,357	2,560,019	59.41
1920	25,234,193	14,961,176	4,857,973	2,820,049	2,594,995	59.29
1919	25,118,641	14,897,839	4,900,048	2,756,686	2,564,068	59.31

Statistics from Municipal Assessors are furnished by the Bureau of Municipal Affairs.
*Formerly in Timiskaming, in which District all other statistics of following tables are included.

FALL WHEAT AND SPRING WHEAT.

TABLE VII.—Showing by County Municipalities of Ontario the area, produce and market value of Fall Wheat and Spring Wheat for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Fall Wheat.				Spring Wheat.			
	Acres.	Bushels.	Per acre	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	382	8,175	21.4	8,445	1,114	22,503	20.2	22,503
Brant	14,021	335,102	23.9	326,389	39	593	15.2	570
Bruce	31,251	671,897	21.5	653,756	304	5,016	16.5	4,695
Carleton	31	713	23.0	687	6,286	124,463	19.8	120,605
Dufferin	3,236	81,871	25.3	79,169	1,200	21,960	18.3	20,511
Dundas	93	1,953	21.0	1,953	614	12,464	20.3	11,878
Durham	6,677	187,624	28.1	181,995	7,179	123,479	17.2	113,971
Elgin	26,155	507,407	19.4	487,111	128	2,010	15.7	1,829
Essex	49,751	1,144,273	23.0	1,041,288	350	5,880	16.8	5,210
Frontenac	166	3,005	18.1	3,104	886	15,948	18.0	15,725
Glengarry	30	516	17.2	516	3,370	57,964	17.2	57,095
Grenville	.....	.....	....	.....	305	5,978	19.6	5,858
Grey	23,336	527,394	22.6	523,702	1,554	25,486	16.4	24,925
Haldimand	22,700	431,300	19.0	425,262	404	6,302	15.6	5,987
Haliburton	.....	.....	....	.....	13	156	12.0	144
Halton	8,940	226,182	25.3	216,909	1,345	22,058	16.4	20,337
Hastings	3,302	80,569	24.4	79,522	722	12,057	16.7	11,852
Huron	38,641	823,053	21.3	791,777	591	10,638	18.0	10,191
Kent	79,807	1,731,812	21.7	1,610,585	1,295	22,922	17.7	20,240
Lambton	56,300	1,216,080	21.6	1,154,060	131	1,834	14.0	1,651
Lanark	334	7,916	23.7	7,718	7,221	132,866	18.4	131,006
Leeds	597	14,567	24.4	14,567	706	13,132	18.6	13,132
Lennox & Add't'n	653	13,713	21.0	13,425	1,489	26,951	18.1	26,735
Lincoln	14,162	308,732	21.8	307,497	65	975	15.0	951
Manitoulin	690	11,178	16.2	11,178	747	9,412	12.6	9,412
Middlesex	58,749	1,221,979	20.8	1,188,986	39	608	15.6	558
Muskoka	3	57	19.0	57	92	1,205	13.1	1,205
Nipissing	.....	.....	....	.....	722	12,202	16.9	12,202
Norfolk	19,579	352,422	18.0	337,268	58	870	15.0	770
Northumberland	8,976	244,147	27.2	239,508	4,926	85,220	17.3	81,726
Ontario	10,240	311,296	30.4	300,712	5,166	89,888	17.4	84,045
Oxford	28,218	733,668	26.0	713,125	288	5,328	18.5	5,062
Parry Sound	.....	.....	....	.....	254	4,343	17.1	4,343
Peel	10,428	254,443	24.4	246,301	2,592	48,470	18.7	45,901
Perth	27,261	686,977	25.2	669,116	97	1,746	18.0	1,657
Peterborough	9,691	266,503	27.5	256,109	4,042	71,543	17.7	67,036
Prescott	83	1,328	16.0	1,328	2,501	48,019	19.2	48,019
Prince Edward	1,903	44,530	23.4	43,951	1,301	22,507	17.3	21,764
Rainy R. & Kenora	128	3,123	24.4	3,092	787	14,323	18.2	13,635
Renfrew	454	9,171	20.2	8,978	32,575	495,140	15.2	479,791
Russell	.....	.....	....	.....	1,753	34,008	19.4	33,056
Simcoe	60,004	1,578,105	26.3	1,524,449	1,320	22,704	17.2	21,342
Stormont	145	2,799	19.3	2,799	1,162	20,219	17.4	20,219
Sudbury	115	1,978	17.2	1,978	1,846	37,289	20.2	37,289
Thunder Bay	28	420	15.0	420	483	9,129	18.9	9,056
Timis. & Cochrane	122	2,403	19.7	2,403	2,361	61,386	26.0	61,386
Victoria	5,861	154,730	26.4	151,635	4,273	65,804	15.4	62,053
Waterloo	19,595	433,050	22.1	432,184	131	1,572	12.0	1,515
Welland	20,890	390,643	18.7	386,346	.....	.....	....	.....
Wellington	8,472	215,189	25.4	210,024	586	11,075	18.9	10,244
Wentworth	13,266	317,057	23.9	313,252	173	3,166	18.3	3,103
York	31,841	1,038,017	32.6	1,001,686	4,015	87,126	21.7	81,550
The Province:								
1923	717,307	16,599,067	23.1	15,976,322	111,601	1,937,937	17.4	1,865,540
1922	813,935	17,792,958	21.9	18,616,746	124,206	2,099,503	16.9	2,207,565
Annual Averages:								
1912–1921	656,001	15,264,886	23.3	22,062,175	198,052	3,609,481	18.2	6,193,730
1902–1911	720,272	16,912,017	23.5	14,142,444	182,335	2,269,976	17.9	2,655,591
1892–1901	930,794	18,688,313	20.1	12,650,091	356,355	5,405,846	15.2	3,650,840
1882–1891	902,846	18,059,235	20.0	16,250,884	563,547	8,882,998	15.8	7,959,306
1882–1923	800,723	17,224,679	21.5	16,324,976	315,207	5,136,201	16.3	4,968,280

BARLEY AND OATS.

TABLE VIII.—Showing by County Municipalities of Ontario the area, produce and market value of Barley and Oats for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Barley.				Oats.			
	Acres.	Bushels.	Per acre	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	1,465	41,167	28.1	27,623	14,611	490,930	33.6	237,610
Brant	5,153	164,381	31.9	98,464	31,359	1,103,837	35.2	483,481
Bruce	15,949	468,901	29.4	279,934	114,478	3,903,700	34.1	1,772,280
Carleton	7,793	245,480	31.5	164,226	91,731	3,449,086	37.6	1,527,945
Dufferin	14,258	424,888	29.8	241,336	67,208	2,479,975	36.9	1,016,790
Dundas	5,726	166,627	29.1	122,304	26,588	930,580	35.0	475,526
Durham	6,687	181,886	27.2	114,406	53,989	1,770,839	32.8	772,086
Elgin	5,998	190,137	31.7	121,498	59,208	2,161,092	36.5	1,041,646
Essex	6,069	205,739	33.9	110,070	77,845	3,191,645	41.0	1,263,891
Frontenac	4,396	99,350	22.6	68,353	45,689	1,402,652	30.7	709,742
Glengarry	5,532	163,194	29.5	112,114	46,239	1,516,639	32.8	661,255
Grenville	2,595	79,667	30.7	58,077	38,091	1,257,003	33.0	646,100
Grey	26,612	779,732	29.3	489,672	156,811	4,751,373	30.3	2,185,632
Haldimand	6,070	174,816	28.8	108,910	40,870	1,410,015	34.5	609,126
Haliburton	775	15,810	20.4	10,577	9,859	255,348	25.9	140,441
Halton	7,356	247,897	33.7	154,688	32,728	1,345,121	41.1	601,269
Hastings	20,421	516,651	25.3	355,973	92,730	2,791,173	30.1	1,409,542
Huron	21,053	673,696	32.0	386,028	138,874	5,249,437	37.8	2,246,759
Kent	11,500	392,150	34.1	225,878	82,299	3,398,949	41.3	1,376,574
Lambton	8,861	262,286	29.6	158,158	86,249	3,260,212	37.8	1,414,932
Lanark	5,829	180,116	30.9	123,740	52,461	1,741,705	33.2	801,184
Leeds	4,481	114,714	25.6	79,038	53,287	1,609,267	30.2	849,693
Lennox & Add't'n.	8,588	232,735	27.1	152,907	48,287	1,578,985	32.7	724,754
Lincoln	1,962	60,233	30.7	39,332	24,735	870,672	35.2	410,957
Manitoulin	1,341	28,697	21.4	20,920	7,711	191,233	24.8	117,035
Middlesex	8,760	282,072	32.2	181,654	116,923	4,431,382	37.9	2,042,867
Muskoka	468	10,062	21.5	7,295	15,584	384,925	24.7	224,796
Nipissing	1,019	28,124	27.6	18,506	20,993	663,379	31.6	327,046
Norfolk	2,798	81,702	29.2	48,939	43,076	1,490,430	34.6	690,069
Northumberland	8,886	248,808	28.0	160,232	69,688	2,313,642	33.2	1,071,216
Ontario	15,103	430,436	28.5	265,579	77,020	2,587,872	33.6	1,156,779
Oxford	8,909	341,215	38.3	227,590	74,680	3,211,240	43.0	1,551,029
Parry Sound	1,200	28,560	23.8	19,592	23,290	680,068	29.2	363,836
Peel	18,685	575,498	30.8	356,233	52,433	1,950,508	37.2	828,966
Perth	22,241	751,746	33.8	462,324	99,220	3,889,424	39.2	1,742,462
Peterborough	8,248	225,995	27.4	143,733	58,978	1,722,158	29.2	800,803
Prescott	5,481	161,690	29.5	111,243	52,983	1,690,158	31.9	741,979
Prince Edward	11,094	290,663	26.2	188,640	29,258	945,033	32.3	454,561
Rainy R. & Kenora	2,088	64,102	30.7	39,230	9,412	342,597	36.4	159,650
Renfrew	4,484	107,616	24.0	72,210	77,612	2,103,285	27.1	967,511
Russell	3,856	109,896	28.5	73,960	36,560	1,297,880	35.5	550,301
Simcoe	39,656	1,035,022	26.1	615,838	148,171	4,519,216	30.5	1,938,744
Stormont	3,173	90,113	28.4	66,954	30,952	1,002,845	32.4	504,431
Sudbury	1,616	36,198	22.4	25,954	16,839	575,894	34.2	289,675
Thunder Bay	601	17,790	29.6	11,421	9,202	357,038	38.8	172,092
Timis. & Cochrane	2,154	81,852	38.0	52,958	16,282	778,280	47.8	386,027
Victoria	11,306	256,646	22.7	161,944	66,600	1,618,380	24.3	737,981
Waterloo	7,365	260,721	35.4	168,426	57,952	2,393,418	41.3	1,134,480
Welland	1,782	52,569	29.5	34,170	28,145	861,237	30.6	403,920
Wellington	20,458	671,022	32.8	425,428	109,135	4,168,957	38.2	1,821,834
Wentworth	5,568	168,154	30.2	110,813	42,170	1,492,818	35.4	668,782
York	29,021	1,004,127	34.6	612,517	90,322	3,901,910	43.2	1,709,037
The Province:								
1923	452,490	13,523,349	29.9	8,487,609	2,967,417	103,485,442	34.9	46,937,124
1922	433,922	13,971,811	32.2	8,561,782	3,034,090	116,033,569	38.2	50,450,114
Annual Averages:								
1912–1921	565,811	17,044,596	30.1	14,650,272	2,797,677	101,507,145	36.3	59,392,491
1902–1911	711,199	21,709,056	30.5	10,870,736	2,703,900	98,968,442	36.6	36,309,289
1892–1901	498,932	13,100,823	26.3	5,037,346	2,291,902	79,229,462	34.6	22,119,649
1882–1891	743,245	19,349,351	26.0	10,547,091	1,663,205	58,410,603	35.1	21,017,492
1882–1923	620,912	17,607,939	28.4	10,192,948	2,394,484	85,730,370	35.8	35,373,249

PEAS AND BEANS.

TABLE IX.—Showing by County Municipalities of Ontario the area, produce and market value of Peas and Beans for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Peas.				Beans.			
	Acres.	Bushels.	Per acre	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	700	13,160	18.8	18,911	35	350	10.0	875
Brant	587	10,038	17.1	12,548	503	7,545	15.0	19,164
Bruce	6,784	124,147	18.3	180,758	101	1,010	10.0	2,404
Carleton	488	8,198	16.8	14,347	305	4,270	14.0	11,102
Dufferin	2,948	58,960	20.0	83,487	22	264	12.0	594
Dundas	22	352	16.0	535	147	2,058	14.0	5,145
Durham	10,339	150,949	14.6	207,706	582	8,730	15.0	21,301
Elgin	1,269	21,573	17.0	28,886	8,951	150,377	16.8	369,927
Essex	254	4,572	18.0	6,858	160	1,920	12.0	4,800
Frontenac	316	4,740	15.0	7,442	295	3,540	12.0	9,877
Glengarry	287	4,133	14.4	6,096	116	1,392	12.0	3,452
Grenville	169	3,211	19.0	5,298	92	1,214	13.2	3,241
Grey	8,425	137,328	16.3	201,598	81	810	10.0	2,057
Haldimand	901	13,785	15.3	19,506	198	2,812	14.2	7,564
Haliburton	172	2,219	12.9	3,107	13	165	12.7	454
Halton	594	11,108	18.7	16,440	243	3,645	15.0	9,113
Hastings	1,390	20,572	14.8	29,459	298	3,278	11.0	8,195
Huron	5,064	105,838	20.9	157,275	6,973	107,384	15.4	262,017
Kent	1,166	20,988	18.0	30,915	15,212	237,307	15.6	552,925
Lambton	452	8,136	18.0	10,170	254	4,064	16.0	9,266
Lanark	704	11,686	16.6	19,107	396	5,425	13.7	14,919
Leeds	130	2,340	18.0	3,152	120	1,512	12.6	3,795
Lennox & Add't'n.	482	7,905	16.4	11,557	90	1,350	15.0	3,402
Lincoln	107	1,659	15.5	2,336	242	3,872	16.0	9,409
Manitoulin	1,441	24,209	16.8	33,505	15	150	10.0	375
Middlesex	1,945	37,733	19.4	52,638	869	13,470	15.5	33,406
Muskoka	528	7,603	14.4	10,515	15	150	10.0	375
Nipissing	945	16,821	17.8	26,914	.....	.....	.....	.....
Norfolk	1,446	22,558	15.6	31,581	1,081	15,675	14.5	36,993
Northumberland	3,997	65,151	16.3	99,420	504	8,014	15.9	21,157
Ontario	5,481	101,399	18.5	141,756	212	2,332	11.0	6,413
Oxford	800	16,320	20.4	20,008	70	1,190	17.0	2,880
Parry Sound	1,285	22,231	17.3	31,590	13	130	10.0	358
Peel	1,067	20,486	19.2	28,373	13	130	10.0	325
Perth	3,454	73,225	21.2	100,904	46	690	15.0	1,766
Peterborough	5,379	82,837	15.4	114,895	209	3,344	16.0	8,694
Prescott	292	4,672	16.0	8,410	261	3,393	13.0	8,720
Prince Edward	6,911	119,560	17.3	162,004	484	6,486	13.4	16,410
Rainy R. & Kenora	379	6,784	17.9	8,860	11	110	10.0	248
Renfrew	11,056	160,312	14.5	276,699	437	5,550	12.7	15,263
Russell	120	2,124	17.7	3,762	122	1,708	14.0	4,509
Simcoe	7,490	131,824	17.6	186,795	227	2,724	12.0	7,246
Stormont	137	1,808	13.2	2,764	113	1,593	14.1	3,855
Sudbury	1,297	25,940	20.0	44,357	4	40	10.0	100
Thunder Bay	344	7,568	22.0	11,352	5	60	12.0	135
Timis. & Cochrane	2,173	54,977	25.3	83,345	12	120	10.0	300
Victoria	5,187	73,137	14.1	99,320	85	961	11.3	2,643
Waterloo	1,358	26,345	19.4	33,010	39	585	15.0	1,316
Welland	104	1,664	16.0	2,496	524	6,760	12.9	20,280
Wellington	5,234	102,586	19.6	142,184	153	1,836	12.0	4,590
Wentworth	430	7,826	18.2	11,207	75	1,050	14.0	2,625
York	3,379	65,553	19.4	94,527	99	1,168	11.8	2,721
The Province:								
1923	117,409	2,030,850	17.3	2,940,685	41,127	633,713	15.4	1,538,701
1922	105,544	2,076,965	19.7	2,914,720	39,999	622,781	15.6	1,579,549
Annual Averages:								
1912–1921	134,576	2,203,352	16.4	3,797,312	58,729	806,805	13.7	2,866,760
1902–1911	389,104	7,056,642	18.1	5,275,196	50,006	854,999	17.1	1,263,012
1892–1901	769,819	14,242,404	18.5	7,613,480	51,654	875,597	17.0	818,381
1882–1891	668,962	13,908,658	20.8	8,573,501	26,201	469,393	17.9	545,087
1882–1923	472,561	9,005,199	19.1	6,153,578	46,358	745,820	16.1	1,382,159

RYE AND BUCKWHEAT.

TABLE X.—Showing by County Municipalities of Ontario the area, produce and market value of Rye and Buckwheat for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Rye.				Buckwheat.			
	Acres.	Bushels.	Per acre	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	120	1,440	12.0	1,094	129	2,580	20.0	1,935
Brant	6,339	110,299	17.4	78,974	4,460	84,740	19.0	59,742
Bruce	170	3,060	18.0	2,396	5,185	110,959	21.4	81,333
Carleton	671	11,675	17.4	9,095	5,885	128,882	21.9	98,981
Dufferin	4,462	81,208	18.2	56,846	5,053	109,650	21.7	75,987
Dundas	11	187	17.0	138	2,442	54,701	22.4	43,050
Durham	13,407	210,490	15.7	150,079	9,770	203,216	20.8	141,642
Elgin	4,105	64,859	15.8	49,098	2,354	44,961	19.1	33,991
Essex	1,123	20,326	18.1	14,818	558	12,834	23.0	10,023
Frontenac	1,006	14,386	14.3	11,336	2,463	49,753	20.2	39,802
Glengarry	20	240	12.0	180	2,385	55,571	23.3	40,289
Grenville	362	6,444	17.8	5,091	6,069	130,484	21.5	101,517
Grey	180	2,520	14.0	1,933	8,185	173,522	21.2	123,374
Haldimand	253	3,922	15.5	2,863	1,422	15,642	11.0	11,638
Haliburton	192	2,784	14.5	2,227	700	14,280	20.4	10,710
Halton	204	3,529	17.3	2,559	1,159	26,657	23.0	19,140
Hastings	5,438	88,639	16.3	70,202	8,621	179,317	20.8	140,943
Huron	88	1,514	17.2	1,090	8,757	232,061	26.5	169,637
Kent	1,628	29,467	18.1	21,835	537	10,525	19.6	7,946
Lambton	460	7,360	16.0	5,520	188	3,760	20.0	2,944
Lanark	1,095	16,644	15.2	12,616	6,107	116,033	19.0	87,721
Leeds	311	4,852	15.6	3,882	4,526	77,395	17.1	59,904
Lennox & Add't'n	1,349	22,933	17.0	17,957	5,370	107,400	20.0	84,309
Lincoln	41	763	18.6	610	487	11,688	24.0	8,380
Manitoulin	350	4,725	13.5	3,780	150	2,745	18.3	2,059
Middlesex	399	6,943	17.4	5,270	1,716	33,805	19.7	25,793
Muskoka	235	4,230	18.0	3,384	284	4,828	17.0	3,862
Nipissing	177	3,239	18.3	2,552	233	4,427	19.0	3,276
Norfolk	18,188	254,632	14.0	181,553	9,635	192,700	20.0	137,973
Northumberland	13,415	233,421	17.4	166,663	15,959	344,714	21.6	245,781
Ontario	6,787	119,451	17.6	88,394	13,012	312,288	24.0	226,409
Oxford	2,713	51,004	18.8	39,528	2,646	61,387	23.2	44,935
Parry Sound	178	3,382	19.0	2,706	130	2,769	21.3	2,077
Peel	3,156	59,648	18.9	43,185	2,352	55,742	23.7	40,413
Perth	101	1,818	18.0	1,351	2,966	67,032	22.6	47,660
Peterborough	3,293	50,712	15.4	37,273	5,991	119,820	20.0	84,713
Prescott	169	3,211	19.0	2,546	1,580	31,600	20.0	25,312
Prince Edward	3,875	62,000	16.0	46,562	8,175	183,938	22.5	136,482
Rainy R. & Kenora	145	2,900	20.0	2,068	22	352	16.0	252
Renfrew	9,270	136,269	14.7	107,789	4,298	79,513	18.5	59,396
Russell	12	180	15.0	144	2,232	53,568	24.0	41,087
Simcoe	10,686	174,182	16.3	125,759	19,353	439,313	22.7	313,230
Stormont	30	486	16.2	365	2,727	72,266	26.5	56,512
Sudbury	672	12,298	18.3	9,838	57	1,425	25.0	1,140
Thunder Bay	113	2,260	20.0	1,695	62	1,395	22.5	1,046
Timis. & Cochrane	130	3,614	27.8	2,891	49	980	20.0	735
Victoria	963	14,252	14.8	10,960	9,746	177,377	18.2	127,002
Waterloo	1,204	23,598	19.6	18,501	3,817	94,280	24.7	69,013
Welland	156	2,293	14.7	1,720	1,914	28,710	15.0	22,509
Wellington	305	5,185	17.0	3,697	10,305	230,832	22.4	165,507
Wentworth	772	14,436	18.7	11,751	2,851	59,301	20.8	45,425
York	2,825	51,415	18.2	37,327	15,202	398,292	26.2	285,974
The Province:								
1923	123,354	2,011,325	16.3	1,481,691	230,276	5,012,010	21.8	3,670,511
1922	152,709	2,500,354	16.4	1,959,112	197,812	4,266,215	21.6	3,137,448
Annual Averages:								
1912–1921	132,760	2,207,966	16.6	2,459,189	188,094	3,942,591	21.0	3,721,788
1902–1911	112,424	1,877,432	16.7	1,129,754	131,168	2,871,668	21.9	1,503,428
1892–1901	129,188	2,088,786	16.2	937,885	131,005	2,450,389	18.7	949,189
1882–1891	103,636	1,683,211	16.2	1,010,057	69,230	1,413,900	20.4	586,472
1882–1923	120,384	1,978,229	16.4	1,400,230	133,882	2,763,421	20.6	1,771,827

FLAX AND MIXED GRAINS.

TABLE XI.—Showing by County Municipalities of Ontario the area, produce and market value of Flax and Mixed Grains for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Flax.				Mixed Grains.			
	Acres.	Bushels.	Per acre	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	20	120	6.0	240	751	27,336	36.4	16,402
Brant	8	96	12.0	192	10,380	384,060	37.0	213,153
Bruce	553	6,083	11.0	12,957	22,413	784,455	35.0	451,846
Carleton	62	372	6.0	744	10,997	437,681	39.8	269,611
Dufferin	41	328	8.0	656	19,417	687,362	35.4	362,927
Dundas	12	72	6.0	144	15,017	510,578	34.0	326,770
Durham	77	462	6.0	924	27,322	912,555	33.4	474,529
Elgin	.....	.....	....	.....	10,962	397,921	36.3	239,548
Essex	1	6	6.0	12	4,209	156,154	37.1	83,386
Frontenac	12	78	6.5	156	4,775	156,620	32.8	103,213
Glengarry	.....	.....	....	.....	2,468	81,444	33.0	50,088
Grenville	35	210	6.0	420	4,191	155,486	37.1	103,865
Grey	509	5,090	10.0	11,198	32,890	1,059,058	32.2	616,372
Haldimand	73	730	10.0	1,460	6,921	240,851	34.8	140,175
Haliburton	.....	.....	....	.....	466	11,790	25.3	7,664
Halton	.....	.....	....	.....	9,277	368,297	39.7	223,925
Hastings	134	1,072	8.0	2,144	11,023	360,452	32.7	235,375
Huron	2,183	23,140	10.6	46,280	33,375	1,278,263	38.3	736,279
Kent	10	60	6.0	120	10,502	424,281	40.4	237,597
Lambton	158	948	6.0	1,896	12,468	463,810	37.2	269,937
Lanark	87	783	9.0	1,566	6,765	221,892	32.8	142,011
Leeds	7	42	6.0	84	4,870	167,528	34.4	105,543
Lennox & Add't'n.	5	30	6.0	60	7,721	268,691	34.8	164,976
Lincoln	.....	.....	....	.....	3 734	133,677	35.8	80,875
Manitoulin	26	104	4.0	208	1,762	50,746	28.8	36,791
Middlesex	191	1,337	7.0	2,727	16,772	649,076	38.7	399,831
Muskoka	9	54	6.0	108	581	17,023	29.3	12,257
Nipissing	13	78	6.0	156	851	23,998	28.2	15,407
Norfolk	37	370	10.0	740	5,999	211,765	35.3	114,777
Northumberland	36	216	6.0	432	16,535	534,081	32.3	329,528
Ontario	223	1,561	7.0	3,122	36,079	1,316,884	36.5	832,271
Oxford	227	2,724	12.0	5,230	28,308	1,222,906	43.2	774,099
Parry Sound	12	72	6.0	144	1,498	46,288	30.9	31,244
Peel	18	180	10.0	360	13,277	488,594	36.8	304,394
Perth	755	9,815	13.0	20,612	27,986	1,099,850	39.3	657,710
Peterborough	12	96	8.0	195	5,702	182,464	32.0	114,405
Prescott	2	12	6.0	24	2,212	70,120	31.7	42,633
Prince Edward	6	36	6.0	72	5,713	189,100	33.1	115,540
Rainy R. & Kenora	182	2,184	12.0	4,368	546	17,854	32.7	10,605
Renfrew	101	1,010	10.0	2,020	3,331	94,267	28.3	58,540
Russell	31	186	6.0	372	4,268	149,380	35.0	97,097
Simcoe	80	800	10.0	1,800	32,588	1,081,922	33.2	628,597
Stormont	6	48	8.0	96	4,336	135,717	31.3	92,423
Sudbury	60	480	8.0	960	1,069	37,415	35.0	24,320
Thunder Bay	.....	.....	....	.....	498	19,920	40.0	11,952
Timis. & Cochrane	43	344	8.0	688	803	32,441	40.4	20,697
Victoria	100	800	8.0	1,600	18,499	490,224	26.5	305,410
Waterloo	41	328	8.0	705	33,059	1,411,619	42.7	846,971
Welland	3	30	10.0	60	3,336	103,750	31.1	63,910
Wellington	507	5,425	10.7	10,850	54,976	2,160,557	39.3	1,296,334
Wentworth	4	24	6.0	48	15,577	567,003	36.4	344,738
York	54	648	12.0	1,426	39,859	1,785,683	44.8	1,051,767
The Province:								
1923	6,766	68,684	10.2	140,376	648,934	23,880,889	36.8	14,290,315
1922	4,556	48,662	10.7	106,046	552,399	21,270,479	38.5	11,882,085
Annual Averages:								
1912–1921	9,940	.....	....	.....	524,500	19,031,019	36.3	15,645,948
1907–1911	10,652	.....	....	.....	471,545	15,772,739	33.4	8,674,687
1907–1923	9,646	.....	....	.....	517,886	18,489,721	35.7	13,294,430

No estimates of yields of flax were made previous to 1918. The average for the six years, 1918–1923, was 11,592 acres, yielding 122,445 bushels, valued at $464,799.

CORN.*

TABLE XII.—Showing by County Municipalities of Ontario the area, produce, and market value of Corn for husking and for fodder for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Corn for Husking.				Corn for Silo.			
	Acres.	Bushels. (in the ear)	Per acre	Market. value.	Acres.	Tons green.	Per acre.	Market value.
				$				$
Algoma	168	5,040	30.0	3,024	357	3,124	8.75	12,496
Brant	4,493	323,496	72.0	198,303	7,923	84,776	10.70	339,104
Bruce	726	29,040	40.0	17,424	7,405	55,834	7.54	223,336
Carleton	1,513	60,520	40.0	38,309	19,846	203,818	10.27	815,272
Dufferin	53	2,120	40.0	1,272	973	10,362	10.65	41,448
Dundas	1,767	79,515	45.0	45,960	13,803	121,880	8.83	487,520
Durham	1,480	88,800	60.0	53,280	8,700	57,942	6.66	231,768
Elgin	17,231	1,223,401	71.0	632,498	16,769	124,594	7.43	498,376
Essex	82,542	6,487,801	78.6	2,854,632	4,804	39,825	8.29	159,300
Frontenac	2,241	89,640	40.0	60,866	6,097	39,935	6.55	159,740
Glengarry	1,002	30,060	30.0	21,042	7,939	67,164	8.46	268,656
Grenville	1,771	63,756	36.0	41,441	8,205	63,589	7.75	254,356
Grey	643	32,150	50.0	18,743	8,996	68,909	7.66	275,636
Haldimand	1,805	97,109	53.8	58,848	4,425	28,940	6.54	115,760
Haliburton	359	15,796	44.0	9,478	490	3,513	7.17	14,052
Halton	469	23,450	50.0	14,070	3,843	40,582	10.56	162,328
Hastings	5,246	236,070	45.0	152,973	10,584	61,705	5.83	246,820
Huron	1,600	96,000	60.0	54,528	10,578	99,751	9.43	399,004
Kent	63,470	4,722,168	74.4	2,261,918	12,206	95,451	7.82	381,804
Lambton	22,947	1,427,303	62.2	722,215	15,286	118,314	7.74	473,256
Lanark	1,363	68,150	50.0	40,890	10,962	81,777	7.46	327,108
Leeds	3,836	191,800	50.0	118,341	12,035	96,882	8.05	387,528
Lennox & Add't'n.	2,858	142,900	50.0	91,027	5,714	42,341	7.41	169,364
Lincoln	3,279	196,740	60.0	120,405	5,575	43,875	7.87	175,500
Manitoulin	121	3,630	30.0	2,178	1,266	11,774	9.30	47,096
Middlesex	11,436	829,110	72.5	479,226	24,908	254,809	10.23	1,019,236
Muskoka	228	6,840	30.0	4,104	726	5,351	7.37	21,404
Nipissing	36	1,080	30.0	648	101	848	8.40	3,392
Norfolk	17,004	967,528	56.9	547,621	10,099	83,115	8.23	332,460
Northumberland	2,865	171,900	60.0	100,905	9,822	83,487	8.50	333,948
Ontario	2,128	102,144	48.0	63,023	11,935	119,350	10.00	477,400
Oxford	4,568	328,896	72.0	188,786	27,412	345,665	12.61	1,382,660
Parry Sound	115	4,600	40.0	2,760	513	3,935	7.67	15,740
Peel	256	12,800	50.0	7,680	4,430	37,965	8.57	151,860
Perth	654	35,316	54.0	21,861	10,597	106,606	10.06	426,424
Peterborough	714	28,560	40.0	17,136	7,564	57,033	7.54	228,132
Prescott	2,094	62,820	30.0	40,833	7,316	57,870	7.91	231,480
Prince Edward	5,876	293,800	50.0	167,466	5,427	45,424	8.37	181,696
Rainy R. & Kenora	93	3,720	40.0	2,232	104	995	9.57	3,980
Renfrew	1,217	40,161	33.0	24,097	7,074	54,328	7.68	217,312
Russell	839	25,170	30.0	15,102	8,344	87,612	10.50	350,448
Simcoe	1,479	73,950	50.0	44,370	11,154	81,313	7.29	325,252
Stormont	1,591	87,505	55.0	54,428	9,076	88,309	9.73	353,236
Sudbury	112	2,800	25.0	1,680	156	1,248	8.00	4,992
Thunder Bay	10	300	30.0	180	10	50	5.00	200
Timis. & Cochrane.	8	200	25.0	120	47	470	10.00	1,880
Victoria	456	18,240	40.0	10,944	7,162	51,137	7.14	204,548
Waterloo	416	16,640	40.0	10,200	8,634	109,824	12.72	439,296
Welland	5,701	278,209	48.8	173,881	5,989	31,802	5.31	127,208
Wellington	616	46,200	75.0	26,195	7,114	68,579	9.64	274,316
Wentworth	1,265	75,900	60.0	45,236	8,451	81,806	9.68	327,224
York	575	41,400	72.0	26,082	10,682	125,514	11.75	502,056
The Province:								
1923	285,335	19,292,244	67.6	9,710,461	409,628	3,651,102	8.91	14,604,408
1922	265,018	18,459,363	69.7	8,609,503	438,819	4,413,191	10.06	17,652,764
Annual Averages:								
1912–1921	262,989	18,126,041	68.9	11,287,114	424,672	4,315,930	10.16	15,936,749
1902–1911	325,515	22,988,755	70.6	8,780,681	236,330	2,731,936	11.56	5,652,083
1892–1901	294,076	21,218,057	72.2	5,314,705	157,611	1,777,533	11.28	3,555,065
1892–1923	293,005	20,658,754	70.5	8,504,530	282,330	3,009,946	10.66	8,865,504

*The combined average area for corn for the ten years 1882–1891 was 195,878 acres, the average value of the produce for the same period being $3,704,614. The combined average for corn for the forty-two years, 1882–1923, is 484,988 acres, the average value of the produce for the same period being $14,116,363.

POTATOES AND TURNIPS.

TABLE XIII.—Showing by County Municipalities of Ontario the area, produce, and market value of Potatoes and Turnips for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Potatoes.				Turnips.			
	Acres.	Bushels.	Per acre.	Market value.	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	1,151	211,554	183.8	159,723	330	96,690	293	19,338
Brant	3,090	396,447	128.3	256,898	1,909	954,500	500	190,900
Bruce	3,904	447,008	114.5	278,486	2,128	670,320	315	134,064
Carleton	4,987	658,284	132.0	576,657	820	225,500	275	45,100
Dufferin	5,059	679,930	134.4	409,318	1,960	880,040	449	176,008
Dundas	1,464	156,941	107.2	132,929	68	20,400	300	4,080
Durham	3,550	417,125	117.5	300,747	1,967	776,965	395	155,393
Elgin	2,806	315,114	112.3	253,667	158	51,350	325	10,270
Essex	2,059	176,662	85.8	162,882	62	15,500	250	3,100
Frontenac	3,574	278,772	78.0	277,099	165	29,700	180	5,940
Glengarry	1,989	222,967	112.1	179,488	129	36,507	283	7,301
Grenville	2,843	281,173	98.9	248,276	142	42,316	298	8,463
Grey	6,232	708,578	113.7	436,484	3,322	1,288,936	388	257,787
Haldimand	961	82,069	85.4	71,236	26	7,020	270	1,404
Haliburton	571	50,476	88.4	42,047	123	28,659	233	5,732
Halton	1,302	143,741	110.4	105,362	1,087	453,279	417	90,656
Hastings	5,338	508,178	95.2	467,524	756	257,040	340	51,408
Huron	3,915	538,313	137.5	326,756	3,477	1,362,984	392	272,597
Kent	3,497	393,413	112.5	387,118	45	13,500	300	2,700
Lambton	3,440	419,680	122.0	346,656	91	27,937	307	5,587
Lanark	2,667	272,834	102.3	238,184	438	105,996	242	21,199
Leeds	2,748	195,658	71.2	174,723	428	118,556	277	23,711
Lennox & Add't'n	2,886	227,417	78.8	211,270	73	16,425	225	3,285
Lincoln	1,400	149,660	106.9	146,667	84	27,720	330	5,544
Manitoulin	581	99,700	171.6	65,603	143	44,902	314	8,980
Middlesex	6,685	978,684	146.4	676,271	930	427,800	460	85,560
Muskoka	1,162	133,398	114.8	118,591	384	117,888	307	23,578
Nipissing	1,291	219,986	170.4	162,570	407	144,892	356	28,978
Norfolk	3,297	346,844	105.2	281,984	450	121,500	270	24,300
Northumberland	4,157	458,933	110.4	335,480	2,428	1,044,040	430	208,808
Ontario	6,146	661,924	107.7	467,980	5,826	2,738,220	470	547,644
Oxford	2,508	345,853	137.9	247,631	3,304	1,711,472	518	342,294
Parry Sound	1,465	211,253	144.2	158,440	468	136,188	291	27,238
Peel	4,254	396,473	93.2	265,240	828	336,168	406	67,234
Perth	2,829	364,092	128.7	250,495	2,788	1,396,788	501	279,358
Peterborough	2,568	233,688	91.0	209,852	1,539	587,898	382	117,580
Prescott	2,548	307,034	120.5	209,704	178	40,050	225	8,010
Prince Edward	1,849	173,436	93.8	154,705	72	20,880	290	4,176
Rainy R. & Kenora	680	115,736	170.2	81,710	223	75,374	338	15,075
Renfrew	4,434	509,023	114.8	382,276	365	109,500	300	21,900
Russell	1,672	193,952	116.0	149,925	296	80,808	273	16,162
Simcoe	13,436	1,443,026	107.4	901,891	4,784	1,703,104	356	340,621
Stormont	1,717	154,702	90.1	144,801	58	17,690	305	3,538
Sudbury	1,477	242,671	164.3	180,062	324	85,212	263	17,042
Thunder Bay	1,801	375,328	208.4	269,486	280	92,120	329	18,424
Timis. & Cochrane	1,299	221,090	170.2	187,927	347	156,150	450	31,230
Victoria	2,360	189,036	80.1	161,437	1,951	620,418	318	124,084
Waterloo	3,178	473,522	149.0	342,830	3,362	1,795,308	534	359,062
Welland	2,065	168,298	81.5	168,298	54	10,800	200	2,160
Wellington	5,209	698,006	134.0	429,972	7,884	3,539,916	449	707,983
Wentworth	4,456	545,860	122.5	417,583	1,248	472,992	379	94,598
York	8,125	938,438	115.5	693,506	4,484	1,963,992	438	392,798
The Province:								
1923	164,682	19,131,980	116.2	14,306,447	65,193	27,099,910	416	5,419,982
1922	172,858	20,349,541	117.7	10,385,525	67,635	29,923,528	442	5,984,706
Annual Averages:								
1912–1921	159,117	17,993,800	113.1	16,211,660	89,869	38,378,214	427	6,596,924
1902–1911	153,092	17,355,152	113.4	8,928,246	123,855	54,987,697	444	5,498,770
1892–1901	164,451	18,304,638	111.3	6,150,629	147,080	63,424,431	431	6,342,443
1882–1891	155,449	18,840,683	121.2	8,476,165	104,943	42,981,280	410	4,298,128
1882–1923	158,539	18,200,578	114.8	10,056,166	114,055	48,922,373	429	5,684,937

MANGELS AND SUGAR BEETS.

TABLE XIV.—Showing by County Municipalities of Ontario the area, produce, and market value of Mangels and Sugar Beets for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for various periods.

Counties and Districts.	Mangels.				Sugar Beets.			
	Acres.	Bushels.	Per acre	Market value	Acres.	Bushels.	Per acre	Market value.
				$				$
Algoma	44	11,000	250	2,200	16	2,400	150	480
Brant	975	395,850	406	79,170	108	33,804	313	6,761
Bruce	1,878	681,714	363	136,343	97	29,100	300	5,820
Carleton	257	72,731	283	14,546	129	24,252	188	4,850
Dufferin	356	122,464	344	24,493	154	47,740	310	9,548
Dundas	71	24,850	350	4,970	48	9,600	200	1,920
Durham	1,224	471,240	385	94,248	31	7,657	247	1,531
Elgin	363	169,884	468	33,977	512	201,216	393	40,243
Essex	278	116,760	420	23,352	1,822	665,030	365	133,006
Frontenac	46	11,362	247	2,272	52	12,116	233	2,423
Glengarry	45	12,015	267	2,403	52	9,100	175	1,820
Grenville	36	14,148	393	2,830	30	8,250	275	1,650
Grey	1,927	697,574	362	139,515	302	71,272	236	14,254
Haldimand	143	63,349	443	12,670	52	18,200	350	3,640
Haliburton	26	7,800	300	1,560	10	2,000	200	400
Halton	888	349,872	394	69,974	17	5,100	300	1,020
Hastings	122	39,162	321	7,832	96	28,128	293	5,626
Huron	2,676	1,123,920	420	224,784	233	79,919	343	15,984
Kent	295	130,095	441	26,019	11,240	4,732,040	421	946,408
Lambton	500	198,000	396	39,600	4,459	1,707,797	383	341,559
Lanark	147	28,371	193	5,674	84	15,708	187	3,142
Leeds	124	34,720	280	6,944	69	10,212	148	2,042
Lennox & Add't'n	14	2,800	200	560	52	13,000	250	2,600
Lincoln	181	76,925	425	15,385	163	62,429	383	12,486
Manitoulin	50	14,400	288	2,880	14	2,800	200	560
Middlesex	976	494,832	507	98,966	668	287,240	430	57,448
Muskoka	39	9,984	256	1,997	33	7,689	233	1,538
Nipissing	25	10,000	400	2,000	8	2,000	250	400
Norfolk	357	126,378	354	25,276	188	49,820	265	9,964
Northumberland	481	214,526	446	42,905	68	22,100	325	4,420
Ontario	2,576	1,210,720	470	242,144	102	27,234	267	5,447
Oxford	1,872	965,952	516	193,190	85	34,000	400	6,800
Parry Sound	35	7,595	217	1,519	31	5,828	188	1,166
Peel	557	225,028	404	45,006	53	13,250	250	2,650
Perth	2,813	1,378,370	490	275,674	97	33,950	350	6,790
Peterborough	594	148,500	250	29,700	37	7,881	213	1,576
Prescott	130	42,250	325	8,450	72	21,600	300	4,320
Prince Edward	30	7,500	250	1,500	12	2,496	208	499
Rainy R. & Kenora	37	11,988	324	2,398	36	12,096	336	2,419
Renfrew	225	61,425	273	12,285	57	13,281	233	2,656
Russell	95	28,500	300	5,700	24	6,000	250	1,200
Simcoe	2,344	869,624	371	173,925	455	135,135	297	27,027
Stormont	32	10,048	314	2,010	42	12,306	293	2,461
Sudbury	46	11,500	250	2,300	27	5,400	200	1,080
Thunder Bay	24	8,352	348	1,670	4	1,200	300	240
Timis. & Cochrane	16	5,600	350	1,120	7	1,400	200	280
Victoria	712	232,824	327	46,565	40	8,000	200	1,600
Waterloo	2,082	1,007,688	484	201,538	12	2,400	200	480
Welland	53	13,250	250	2,650	51	11,475	225	2,295
Wellington	2,477	1,136,943	459	227,388	188	62,040	330	12,408
Wentworth	1,128	509,856	452	101,971	134	38,592	288	7,719
York	2,696	1,245,552	462	249,110	77	24,332	316	4,867
The Province:								
1923	35,118	14,865,791	423	2,973,158	22,450	8,647,615	385	1,729,523
1922	35,274	16,366,353	464	3,273,271	20,725	7,616,281	367	1,523,246
Annual Averages:								
1912–1921	45,147	19,038,931	422	2,954,339	23,813	8,931,907	375	1,845,807
1902–1911	70,809	33,245,680	470	2,659,654	*21,132	*8,484,719	*402	*1,027,108
1892–1901	39,984	17,864,726	447	1,429,178	.....	.....	....	.....
1882–1891	19,546	8,538,096	437	683,048	.....	.....	....	.....
1882–1923	43,459	19,478,726	448	1,988,300	†22,763	†8,706,268	†382	†1,579,199

*1907–11. †1907–23.

ALFALFA AND HAY AND CLOVER.

TABLE XV.—Showing by County Municipalities of Ontario the area, produce, and market value of Alfalfa, Hay and Clover for the year 1923, together with the comparative totals for the Province for 1922, and the annual average for various periods.

Counties and Districts.	Alfalfa.				Hay and Clover.			
	Acres.	Tons.	Per acre	Market value.	Acres.	Tons.	Per acre	Market value.
				$				$
Algoma	44	83	1.88	1,100	27,734	27,734	1.00	441,803
Brant	5,571	14,095	2.53	161,670	36,875	58,263	1.58	637,980
Bruce	23,388	58,938	2.52	563,447	133,456	198,849	1.49	1,897,019
Carleton	1,635	4,088	2.50	42,515	111,225	194,644	1.75	2,242,299
Dufferin	1,102	3,108	2.82	33,162	72,801	127,402	1.75	1,274,020
Dundas	453	1,359	3.00	13,930	56,288	104,133	1.85	1,001,759
Durham	992	2,440	2.46	25,986	58,870	101,845	1.73	1,087,705
Elgin	2,440	5,905	2.42	72,927	78,873	96,225	1.22	1,071,947
Essex	9,103	22,211	2.44	298,960	52,058	73,402	1.41	930,737
Frontenac	1,431	3,735	2.61	42,766	90,478	141,146	1.56	1,638,705
Glengarry	255	561	2.20	5,610	65,520	115,970	1.77	1,206,088
Grenville	295	711	2.41	7,821	55,023	93,539	1.70	999,932
Grey	32,088	72,840	2.27	796,870	168,175	230,400	1.37	2,405,376
Haldimand	23,411	58,996	2.52	602,939	69,248	102,487	1.48	972,602
Haliburton	62	124	2.00	1,488	15,107	22,661	1.50	331,530
Halton	12,994	31,835	2.45	394,117	40,097	74,580	1.86	904,655
Hastings	10,223	24,331	2.38	263,018	100,738	160,173	1.59	1,893,245
Huron	18,034	50,495	2.80	488,792	141,553	219,407	1.55	1,970,275
Kent	8,946	25,049	2.80	328,893	59,310	81,255	1.37	959,622
Lambton	20,451	52,764	2.58	576,183	90,916	119,100	1.31	1,204,101
Lanark	1,546	4,375	2.83	49,219	80,133	133,021	1.66	1,672,074
Leeds	797	1,833	2.30	20,420	80,177	140,310	1.75	1,526,573
Lennox & Add't'n.	4,722	12,702	2.69	132,228	74,243	120,274	1.62	1,206,348
Lincoln	9,880	27,664	2.80	384,253	45,509	65,078	1.43	848,617
Manitoulin	178	335	1.88	5,025	22,635	12,449	.55	256,200
Middlesex	9,285	26,741	2.88	321,694	128,186	190,997	1.49	2,110,517
Muskoka	20	60	3.00	780	28,654	50,718	1.77	767,363
Nipissing	65	146	2.25	2,336	27,073	38,444	1.42	609,337
Norfolk	2,731	7,510	2.75	92,298	58,386	87,579	1.50	976,506
Northumberland	4,414	11,830	2.68	133,088	72,163	136,388	1.89	1,513,907
Ontario	2,662	7,906	2.97	95,425	81,037	141,004	1.74	1,546,814
Oxford	7,470	21,738	2.91	250,204	87,099	155,036	1.78	1,586,018
Parry Sound	86	215	2.50	2,795	35,665	49,931	1.40	754,457
Peel	20,721	56,983	2.75	610,858	49,261	89,162	1.81	1,046,762
Perth	2,698	8,013	2.97	87,903	114,843	229,686	2.00	2,131,486
Peterborough	1,049	3,147	3.00	37,764	55,443	93,699	1.69	1,198,410
Prescott	156	285	1.83	2,850	74,498	125,902	1.69	1,310,640
Prince Edward	5,615	15,273	2.72	148,301	44,854	89,708	2.00	824,417
Rainy R. & Kenora	285	618	2.17	8,343	27,136	27,136	1.00	430,106
Renfrew	509	1,028	2.02	12,336	100,223	163,363	1.63	2,069,809
Russell	271	678	2.50	7,085	57,582	88,100	1.53	920,645
Simcoe	5,416	15,111	2.79	177,856	138,897	248,626	1.79	2,993,457
Stormont	378	1,043	2.76	10,430	52,642	96,861	1.84	95,796
Sudbury	177	531	3.00	6,903	29,440	36,800	1.25	580,336
Thunder Bay	28	63	2.25	945	23,400	20,592	.88	404,427
Timis. & Cochrane.	13	33	2.50	429	31,220	51,825	1.66	764,419
Victoria	732	1,976	2.70	24,423	66,734	115,450	1.73	1,375,010
Waterloo	4,323	13,358	3.09	161,231	58,105	120,858	2.08	1,387,450
Welland	6,019	15,288	2.54	220,453	57,235	71,544	1.25	924,348
Wellington	4,345	11,254	2.59	126,270	133,463	221,549	1.66	2,153,456
Wentworth	10,922	29,489	2.70	346,791	54,139	93,119	1.72	1,091,355
York	19,179	57,537	3.00	712,308	82,064	150,998	1.84	1,920,695
The Province:								
1923	299,610	788,431	2.63	8,915,438	3,596,484	5,799,422	1.61	64,069,155
1922	221,326	629,135	2.84	7,439,403	3,575,662	5,568,459	1.56	66,964,036
Annual Averages:								
1912–1921	168,413	406,540	2.41	6,422,524	3,347,351	4,709,381	1.41	74,803,560
1902–1911	.....	.....	.....	.....	*3,072,288	4,722,662	1.54	47,093,908
1892–1901	.....	.....	.....	.....	*2,520,783	3,650,840	1.45	29,085,813
1882–1891	.....	.....	.....	.....	*2,290,495	3,102,733	1.35	32,086,445
1882–1923	.....	.....	.....	.....	*2,897,295	4,254,928	1.47	48,626,441

*Including Alfalfa.

CARROTS—ALL FIELD CROPS.

TABLE XVI.—Showing by County Municipalities of Ontario the area, produce, and market value of Carrots and all Field Crops enumerated in Tables VII to XVI, for the year 1923, together with the comparative totals for the Province for 1922, and the annual averages for the various periods.

Counties and Districts.	Carrots.				All Field Crops.		
	Acres.	Bushels.	Per acre	Market value.	Acres.	Value.	Per acre.
				$		$	$ c.
Algoma	40	4,000	100	800	49,211	976,602	19.85
Brant	30	4,050	135	810	133,823	3,164,273	23.65
Bruce	51	10,200	200	2,040	370,221	6,700,338	18.10
Carleton	135	20,250	150	4,050	264,796	6,000,941	22.66
Dufferin	9	1,800	200	360	200,312	3,907,932	19.51
Dundas	8	800	100	170	124,642	2,680,681	21.51
Durham	22	4,400	200	880	212,865	4,130,177	19.40
Elgin	50	5,500	110	1,100	238,332	4,988,539	20.93
Essex	42	4,200	100	840	293,090	7,107,165	24.25
Frontenac	29	5,452	188	1,090	164,117	3,159,651	19.25
Glengarry	29	4,350	150	870	137,407	2,624,363	19.10
Grenville	19	3,800	200	760	120,273	2,494,996	20.74
Grey	18	3,600	200	720	480,286	8,525,848	17.75
Haldimand	7	700	100	140	179,890	3,171,730	17.63
Haliburton	20	3,000	150	600	28,958	582,211	20.11
Halton	5	500	100	100	122,548	3,006,662	24.53
Hastings	45	9,000	200	1,800	277,227	5,433,453	19.60
Huron	22	4,400	200	880	437,687	8,560,933	19.56
Kent	19	1,900	100	380	362,984	9,379,477	25.84
Lambton	43	4,300	100	860	323,654	6,738,551	20.82
Lanark	29	3,045	105	608	178,368	3,699,686	20.74
Leeds	32	5,856	183	1,170	169,281	3,394,242	20.05
Lennox and Addington	57	11,400	200	2,280	164,653	3,019,044	18.34
Lincoln	72	18,000	250	3,600	111,678	2,572,804	23.04
Manitoulin	19	1,900	100	380	39,240	624,165	15.91
Middlesex	44	8,052	183	1,610	389,481	8,784,258	22.55
Muskoka	48	9,600	200	1,920	49,093	1,205,129	24.55
Nipissing	29	4,640	160	928	53,988	1,216,648	22.54
Norfolk	53	10,600	200	2,120	194,462	3,873,192	19.92
Northumberland	41	9,840	240	1,968	239,361	5,091,092	21.27
Ontario	67	13,400	200	2,680	281,802	6,554,037	23.26
Oxford	8	1,600	200	320	281,185	7,581,389	26.96
Parry Sound	24	3,960	165	792	66,262	1,420,797	21.44
Peel	25	4,125	165	824	184,406	4,092,565	22.19
Perth	7	854	122	170	321,453	7,185,723	22.35
Peterborough	43	7,095	165	1,418	171,096	3,469,424	20.28
Prescott	51	7,650	150	1,530	152,607	2,808,031	18.40
Prince Edward	14	1,778	127	355	132,469	2,669,101	20.15
Rainy River and Kenora	11	2,035	185	407	42,305	788,678	18.64
Renfrew	55	7,700	140	1,540	257,777	4,792,408	18.59
Russell	48	7,200	150	1,440	118,125	2,271,995	19.23
Simcoe	90	9,900	110	1,980	497,630	10,350,179	20.80
Stormont	28	4,200	150	840	108,345	1,417,958	13.09
Sudbury	52	5,200	100	1,040	55,386	1,231,046	22.23
Thunder Bay	23	4,025	175	804	36,916	915,545	24.80
Timiskaming and Cochrane	30	3,000	100	600	57,116	1,599,435	28.00
Victoria	11	2,090	190	418	202,778	3,609,577	17.80
Waterloo	3	300	100	60	204,676	5,608,268	27.40
Welland	35	3,500	100	700	134,056	2,557,404	19.08
Wellington	9	1,800	200	360	371,436	8,049,040	21.67
Wentworth	31	3,875	125	774	162,660	3,944,995	24.25
York	48	10,848	226	2,168	344,547	9,382,122	27.23
The Province:							
1923	1,780	285,270	160	57,054	10,296,961	219,114,500	21.28
1922	2,124	472,643	223	94,529	10,258,613	223,342,150	21.77
Annual Averages:							
1912–1921	2,568	626,100	244	118,422	*9,785,960	*267,211,002	27.31
1902–1911	5,243	1,688,002	322	211,000	9,233,879	156,824,689	16.98
1892–1901	11,163	3,880,538	348	485,068	8,494,796	106,139,762	12.49
1882–1891	10,243	3,659,347	351	457,417	7,517,606	116,195,708	15.48
1882–1923	7,092	2,364,233	333	306,444	8,830,428	164,432,578	18.62

*Including Flax, 1918–1921.

PASTURE, FALLOW, ORCHARD, SMALL FRUITS.

TABLE XVII.—Showing by County Municipalities the area in Cleared Pasture, Summer Fallow, Orchards and Small Fruits in 1923, together with totals for the Province for the past five years.

Counties and Districts.	Cleared Pasture.	Summer-fallow.	Orchard.	Small Fruits.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
Algoma	8,938	1,514	354	72	10,878
Brant	29,565	2,791	4,464	788	37,608
Bruce	157,676	13,521	7,335	335	178,867
Carleton	97,447	791	1,675	191	100,104
Dufferin	60,034	3,212	2,441	124	65,811
Dundas	44,846	228	1,775	156	47,005
Durham	68,513	4,725	7,494	510	81,242
Elgin	92,011	3,306	7,370	1,127	103,814
Essex	47,800	1,073	5,718	1,375	55,966
Frontenac	73,587	510	1,483	134	75,714
Glengarry	50,114	1	1,211	137	51,463
Grenville	55,878	1,223	1,306	172	58,579
Grey	164,332	10,257	10,878	655	186,122
Haldimand	39,167	6,316	4,929	325	50,737
Haliburton	16,831	289	115	13	17,248
Halton	32,459	3,395	7,097	948	43,899
Hastings	125,800	3,353	5,416	366	134,935
Huron	186,434	6,579	12,310	616	205,939
Kent	90,642	2,536	6,473	1,032	100,683
Lambton	156,930	4,478	11,207	917	173,532
Lanark	129,436	636	1,220	102	131,394
Leeds	84,276	215	1,655	256	86,402
Lennox and Addington	76,901	1,097	1,741	278	80,017
Lincoln	21,539	4,231	14,320	3,455	43,545
Manitoulin	9,358	301	233	32	9,924
Middlesex	229,742	5,418	12,845	1,275	249,280
Muskoka	18,340	525	126	62	19,053
Nipissing	9,941	885	80	27	10,933
Norfolk	51,105	4,980	9,109	1,868	67,062
Northumberland	79,360	3,132	13,450	751	96,693
Ontario	76,387	3,925	6,165	586	87,063
Oxford	91,032	2,783	8,357	739	102,911
Parry Sound	18,320	950	138	69	19,477
Peel	57,451	5,410	4,714	547	68,122
Perth	106,705	7,411	6,139	499	120,754
Peterborough	69,932	4,039	2,106	333	76,410
Prescott	55,397	.....	781	155	56,333
Prince Edward	46,433	1,171	8,160	493	56,257
Rainy River and Kenora	6,672	712	12	25	7,421
Renfrew	100,201	3,197	958	202	104,558
Russell	38,036	232	605	72	38,945
Simcoe	114,680	27,908	8,967	1,040	152,595
Stormont	49,549	334	1,159	106	51,148
Sudbury	7,493	295	20	30	7,838
Thunder Bay	5,246	72	37	53	5,408
Timiskaming and Cochrane	7,728	463	30	33	8,254
Victoria	64,740	2,710	2,028	183	69,661
Waterloo	31,482	4,378	4,370	522	40,752
Welland	28,493	6,681	6,144	1,207	42,525
Wellington	95,744	5,245	5,238	267	106,494
Wentworth	30,909	4,189	6,449	1,503	43,050
York	61,010	12,500	6,942	734	81,186
The Province:					
1923	3,472,642	186,123	235,349	27,497	3,921,611
1922	3,401,033	198,841	239,914	27,242	3,867,030
1921	3,401,998	260,277	242,921	26,175	3,931,371
1920	3,432,620	216,377	248,395	25,635	3,923,027
1919	3,499,802	276,337	257,006	25,244	4,058,389

MARKET PRICES.

TABLE XVIII.—The following table shows by Counties the average prices of agricultural products for 1923, together with the average price for 1922, and the annual averages for various periods.

Counties and Districts.	Fall Wheat, per bush.	Spring Wheat, per bush.	Barley, per bush.	Oats, per bush.	Peas, per bush.	Beans, per bush.	Rye, per bush.	Buckwheat per bush.	Corn (in ear), per bush.	Hay, per ton.	Potatoes, per bush.
	cts.	cts.	cts.	cts.	cts.	$ c.	cts.	cts.	cts.	$ c.	cts.
Algoma	103.3	100.0	67.1	48.4	143.7	2 50	76.0	75.0	60.0	15 93	75.5
Brant	97.4	96.2	59.9	43.8	125.0	2 54	71.6	70.5	61.3	10 95	64.8
Bruce	97.3	93.6	59.7	45.4	145.6	2 38	78.3	73.3	60.0	9 54	62.3
Carleton	96.4	96.9	66.9	44.3	175.0	2 60	77.9	76.8	63.3	11 52	87.6
Dufferin	96.7	93.4	56.8	41.0	141.6	2 25	70.0	69.3	60.0	10 00	60.2
Dundas	100.0	95.3	73.4	51.1	151.9	2 50	74.0	78.7	57.8	9 62	84.7
Durham	97.0	92.3	62.9	43.6	137.6	2 44	71.3	69.7	60.0	10 68	72.1
Elgin	96.0	91.0	63.9	48.2	133.9	2 46	75.7	75.6	51.7	11 14	80.5
Essex	91.0	88.6	53.5	39.6	150.0	2 50	72.9	78.1	44.0	12 68	92.2
Frontenac	103.3	98.6	68.8	50.6	157.0	2 79	78.8	80.0	67.9	11 61	99.4
Glengarry	100.0	98.5	68.7	43.6	147.5	2 48	75.0	72.5	70.0	10 40	80.5
Grenville	.....	98.0	72.9	51.4	165.0	2 67	79.0	77.8	65.0	10 69	88.3
Grey	99.3	97.8	62.8	46.0	146.8	2 54	76.7	71.1	58.3	10 44	61.6
Haldimand	98.6	95.0	62.3	43.2	141.5	2 69	73.0	74.4	60.6	9 49	86.8
Haliburton	.....	92.5	66.9	55.0	140.0	2 75	80.0	75.0	60.0	14 63	83.3
Halton	95.9	92.2	62.4	44.7	148.0	2 50	72.5	71.8	60.0	12 13	73.3
Hastings	98.7	98.3	68.9	50.5	143.2	2 50	79.2	78.6	64.8	11 82	92.0
Huron	96.2	95.8	57.3	42.8	148.6	2 44	72.0	73.1	56.8	8 98	60.7
Kent	93.0	88.3	57.6	40.5	147.3	2 33	74.1	75.5	47.9	11 81	98.4
Lambton	94.9	90.0	60.3	43.4	125.0	2 28	75.0	78.3	50.6	10 11	82.6
Lanark	97.5	98.6	68.7	46.0	163.5	2 75	75.8	75.6	60.0	12 57	87.3
Leeds	100.0	100.0	68.9	52.8	134.7	2 51	80.0	77.4	61.7	10 88	89.3
Lennox and Addington	97.9	99.2	65.7	45.9	146.2	2 52	78.3	78.5	63.7	10 03	92.9
Lincoln	99.6	97.5	65.3	47.2	140.8	2 43	80.0	71.7	61.2	13 04	98.0
Manitoulin	100.0	100.0	72.9	61.2	138.4	2 50	80.0	75.0	60.0	20 58	65.8
Middlesex	97.3	91.7	64.4	46.1	139.5	2 48	75.9	76.3	57.8	11 05	69.1
Muskoka	100.0	100.0	72.5	58.4	138.3	2 50	80.0	80.0	60.0	15 13	88.9
Nipissing	.....	100.0	65.8	49.3	160.0	.....	78.8	74.0	60.0	15 85	73.9
Norfolk	95.7	88.5	59.9	46.3	140.0	2 36	71.3	71.6	56.6	11 15	81.3
Northumberland	98.1	95.9	64.4	46.3	152.6	2 64	71.4	71.3	58.7	11 10	73.1
Ontario	96.6	93.5	61.7	44.7	139.8	2 75	74.0	72.5	61.7	10 97	70.7
Oxford	97.2	95.0	66.7	48.3	122.6	2 42	77.5	73.2	57.4	10 23	71.6
Parry Sound	.....	100.0	68.6	53.5	142.1	2 75	80.0	75.0	60.0	15 11	75.0
Peel	96.8	94.7	61.9	42.5	138.5	2 50	72.4	72.5	60.0	11 74	66.9
Perth	97.4	94.9	61.5	44.8	137.8	2 56	74.3	71.1	61.9	9 28	68.8
Peterborough	96.1	93.7	63.6	46.5	138.7	2 60	73.5	70.7	60.0	12 79	89.8
Prescott	100.0	100.0	68.8	43.9	180.0	2 57	79.3	80.1	65.0	10 41	68.3
Prince Edward	98.7	96.7	64.9	48.1	135.5	2 53	75.1	74.2	57.0	9 19	89.2
Rainy River & Kenora	99.0	95.2	61.2	46.6	130.6	2 25	71.3	71.7	60.0	15 85	70.6
Renfrew	97.9	96.9	67.1	46.0	172.6	2 75	79.1	74.7	60.0	12 67	75.1
Russell	.....	97.2	67.3	42.4	177.1	2 64	80.0	76.7	60.0	10 45	77.3
Simcoe	96.6	94.0	59.5	42.9	141.7	2 66	72.2	71.3	60.0	12 04	62.5
Stormont	100.0	100.0	74.3	50.3	152.9	2 42	75.0	78.2	62.2	9 89	93.6
Sudbury	100.0	100.0	71.7	50.3	171.0	2 50	80.0	80.0	60.0	15 77	74.2
Thunder Bay	100.0	99.2	64.2	48.2	150.0	2 25	75.0	75.0	60.0	19 64	71.8
Timisk'm'g & Cochrane	100.0	100.0	64.7	49.6	151.6	2 50	80.0	75.0	60.0	14 75	85.0
Victoria	98.0	94.3	63.1	45.6	135.8	2 75	76.9	71.6	60.0	11 91	85.4
Waterloo	99.8	96.4	64.6	47.4	125.3	2 25	78.4	73.2	61.3	11 48	72.4
Welland	98.9	.....	65.0	46.9	150.0	3 00	75.0	78.4	62.5	12 92	100.0
Wellington	97.6	92.5	63.4	43.7	138.6	2 50	71.3	71.7	56.7	9 72	61.6
Wentworth	98.8	98.0	65.9	44.8	143.2	2 50	81.4	76.6	59.6	11 72	76.5
York	96.5	93.6	61.0	43.8	144.2	2 33	72.6	71.8	63.0	12 72	73.9
The Province:											
1923	96.2	96.3	62.8	45.4	144.8	2 43	73.7	73.2	50.3	11 05	74.8
1922	104.6	105.1	61.3	43.5	140.3	2 54	78.4	73.5	46.6	12 03	51.0
Annual Averages:											
1912–1921	144.5	171.6	86.0	58.5	172.3	2 35	111.4	94.4	62.3	15 88	90.1
1902–1911	83.6	81.2	50.1	36.7	74.8	1 48	60.2	52.4	38.2	9 97	51.4
1892–1901	67.8	67.5	38.5	27.9	53.5	93	44.9	38.7	25.0	7 97	33.6
1882–1891	90.0	89.6	54.5	34.3	61.6	1 16	60.0	41.5	.....	10 34	45.0
1882–1923	94.8	96.7	57.9	41.3	68.3	1 85	70.8	64.1	*41.2	11 43	55.3

*Average for 32 years, 1892–1923.

HORSES AND

TABLE XIX.—Showing by County Municipalities the number and value of Horses and year ending June 15th, 1923, together with the

Counties and Districts.	Horses, all ages.				Cattle.	
	Number on hand.	Value.	Horses sold.		Milch cows on hand.	
			Number.	Value.	Number.	Value.
		$		$		$
Algoma	3,157	418,354	242	29,864	6,130	359,708
Brant	8,839	982,762	591	66,575	15,514	990,103
Bruce	23,286	2,483,315	2,071	248,668	33,407	1,907,540
Carleton	17,264	2,045,872	1,049	138,680	44,910	2,228,883
Dufferin	11,568	1,250,073	985	110,553	16,662	929,073
Dundas	8,753	913,152	547	58,737	31,371	1,753,953
Durham	13,469	1,490,910	984	118,854	18,762	1,043,542
Elgin	16,118	1,773,320	1,321	157,827	33,676	2,087,912
Essex	18,648	2,069,130	1,386	174,434	22,305	1,233,467
Frontenac	10,664	1,070,107	605	60,674	31,622	1,345,516
Glengarry	8,693	957,281	654	77,100	32,154	1,579,404
Grenville	7,514	750,410	467	48,777	21,448	1,063,821
Grey	28,949	3,167,911	2,020	226,454	44,326	2,432,168
Haldimand	10,898	1,156,561	716	83,049	17,208	1,022,327
Haliburton	1,979	230,310	164	16,680	4,247	174,509
Halton	8,050	914,710	535	67,885	14,591	959,504
Hastings	18,610	2,000,494	1,119	124,402	47,347	2,079,954
Huron	29,663	3,301,122	2,960	368,858	39,556	2,473,832
Kent	24,202	2,725,179	1,825	212,944	24,547	1,419,062
Lambton	23,311	2,519,366	2,288	279,358	32,462	1,956,160
Lanark	11,506	1,231,919	667	68,136	27,748	1,241,168
Leeds	11,127	1,169,045	513	57,401	38,316	1,892,810
Lennox & Addington	10,487	1,120,918	645	74,026	25,684	1,188,142
Lincoln	7,502	839,106	465	54,190	11,039	721,951
Manitoulin	2,285	262,568	187	22,650	4,552	222,092
Middlesex	30,833	3,240,238	2,627	310,722	54,721	3,431,007
Muskoka	3,552	454,588	297	37,480	7,270	354,485
Nipissing	3,640	469,385	259	32,353	7,508	336,659
Norfolk	13,390	1,412,250	968	106,213	23,162	1,372,580
Northumberland	15,932	1,759,046	972	115,632	27,535	1,446,689
Ontario	18,763	2,106,589	1,270	159,428	27,393	1,655,907
Oxford	19,363	2,180,487	1,451	171,624	50,003	3,333,700
Parry Sound	4,181	543,383	390	49,057	8,245	446,137
Peel	11,990	1,344,186	1,020	131,100	20,015	1,268,951
Perth	22,047	2,338,528	1,864	211,319	37,270	2,326,393
Peterborough	11,329	1,221,311	684	77,872	22,806	1,052,953
Prescott	7,955	850,554	508	58,259	29,454	1,241,486
Prince Edward	8,334	890,604	420	48,633	17,197	830,959
Rainy River and Kenora	3,132	446,281	270	39,273	4,722	255,271
Renfrew	15,097	1,822,856	999	124,222	30,795	1,230,876
Russell	7,238	794,896	517	61,658	24,070	1,112,756
Simcoe	32,156	3,651,624	2,272	281,696	45,777	2,471,958
Stormont	7,438	782,561	470	49,456	29,392	1,394,944
Sudbury	3,152	413,425	306	39,796	6,830	338,085
Thunder Bay	1,904	288,427	134	18,612	4,587	307,375
Timisk'g and Cochrane	3,110	480,704	347	50,962	4,374	301,106
Victoria	13,338	1,480,390	895	104,800	21,221	1,094,367
Waterloo	13,366	1,419,120	1,009	116,545	20,465	1,314,058
Welland	8,555	958,793	491	53,855	13,530	860,643
Wellington	22,909	2,536,034	1,582	190,514	32,715	2,073,150
Wentworth	11,175	1,239,658	693	77,739	18,335	1,283,450
York	22,950	2,572,538	1,591	189,251	36,989	2,495,648
The Province:						
1923	673,371	74,542,351	49,312	5,854,847	1,265,965	69,938,194
1922	685,852	74,535,855	53,416	6,563,473	1,235,665	65,091,068
1921	694,237	75,680,750	67,940	8,606,379	1,204,270	62,094,883
1920	704,640	89,606,594	76,548	10,647,026	1,170,010	100,429,918
1919	719,569	92,823,683	78,354	10,811,664	1,141,016	101,218,161

CATTLE.

Cattle on hand June 15th, 1923, and the number and value of those sold or slaughtered in the totals for the Province for the past five years.

Cattle.						Counties and Districts.
Other Cattle on Hand.		Total on Hand.		Sold or Slaughtered.		
Number.	Value.	Number.	Value.	Number.	Value.	
	$		$		$	
7,653	175,882	13,783	535,590	4,102	128,658	Algoma.
14,561	396,718	30,075	1,386,821	10,691	391,255	Brant.
76,708	2,245,027	110,115	4,152,567	30,236	1,560,561	Bruce.
39,802	823,869	84,712	3,052,752	25,889	723,948	Carleton.
33,077	854,144	49,739	1,783,217	12,414	571,656	Dufferin.
15,296	314,986	46,667	2,068,939	11,975	292,641	Dundas.
32,073	815,965	50,835	1,859,507	14,800	617,560	Durham.
34,283	983,257	67,959	3,071,169	21,100	821,791	Elgin.
18,093	461,643	40,398	1,695,110	14,624	474,640	Essex.
25,958	428,177	57,580	1,773,693	14,351	317,575	Frontenac.
17,329	383,779	49,483	1,963,183	15,537	271,167	Glengarry.
13,646	260,630	35,094	1,324,451	10,045	248,411	Grenville.
91,982	2,413,431	136,308	4,845,599	37,972	1,787,406	Grey.
19,415	509,713	36,623	1,532,040	12,304	442,623	Haldimand.
6,316	105,598	10,563	280,107	2,954	73,118	Haliburton.
18,563	522,126	33,154	1,481,630	11,448	493,260	Halton.
40,994	701,058	88,341	2,781,012	24,527	495,588	Hastings.
85,843	2,527,502	125,399	5,001,334	37,119	1,843,560	Huron.
44,385	1,276,288	68,932	2,695,350	20,716	906,300	Kent.
68,166	2,065,001	100,628	4,021,161	33,286	1,585,126	Lambton.
43,018	802,994	70,766	2,044,162	16,928	491,744	Lanark.
25,044	499,166	63,360	2,391,976	16,028	370,312	Leeds.
23,651	446,834	49,335	1,634,976	12,439	294,149	Lennox and Addington.
8,069	216,407	19,108	938,358	7,829	269,084	Lincoln.
9,636	206,606	14,188	428,698	3,933	123,151	Manitoulin.
86,614	2,690,664	141,335	6,121,671	44,147	1,901,000	Middlesex.
9,569	191,383	16,839	545,868	5,357	147,361	Muskoka.
10,838	213,840	18,346	550,499	4,906	159,592	Nipissing.
17,069	428,217	40,231	1,800,797	12,997	380,593	Norfolk.
31,256	724,428	58,791	2,171,117	16,667	541,609	Northumberland.
45,445	1,241,203	72,838	2,897,110	21,427	947,443	Ontario.
38,548	1,169,221	88,551	4,502,921	29,170	1,108,671	Oxford.
14,404	307,293	22,649	753,430	6,388	225,264	Parry Sound.
23,035	631,293	43,050	1,900,244	15,193	635,440	Peel.
57,015	1,547,367	94,285	3,873,760	28,521	1,218,091	Perth.
31,534	592,805	54,340	1,645,758	13,985	419,169	Peterborough.
18,023	327,706	47,477	1,569,192	12,223	245,902	Prescott.
9,849	211,469	27,046	1,042,428	8,116	199,995	Prince Edward.
6,198	128,551	10,920	383,822	3,337	99,123	Rainy River & Kenora.
52,406	975,224	83,201	2,206,100	21,471	582,425	Renfrew.
14,732	284,548	38,802	1,397,304	12,013	245,928	Russell.
79,416	1,965,054	125,193	4,437,012	33,800	1,357,524	Simcoe.
12,666	264,401	42,058	1,659,345	12,411	236,793	Stormont.
8,502	169,490	15,332	507,575	5,550	163,211	Sudbury.
3,177	72,866	7,764	380,241	2,343	89,609	Thunder Bay.
5,252	123,760	9,626	424,866	3,315	129,511	Timisk'g and Cochrane.
41,893	952,042	63,114	2,046,409	16,261	644,195	Victoria.
23,618	567,394	44,083	1,881,452	18,513	844,432	Waterloo.
11,076	301,361	24,606	1,162,004	9,445	317,148	Welland.
58,253	1,642,085	90,968	3,715,235	30,200	1,557,430	Wellington.
15,920	459,371	34,255	1,742,821	13,898	483,602	Wentworth.
32,253	909,035	69,242	3,404,683	23,401	915,274	York.
						The Province:
1,572,122	39,528,872	2,838,087	109,467,066	848,302	31,391,619	.....1923.
1,600,516	38,808,348	2,836,181	103,899,416	883,620	32,629,693	.....1922.
1,685,843	41,766,682	2,890,113	103,861,565	944,613	37,509,685	.....1921.
1,711,817	76,467,572	2,881,827	176,897,490	1,018,770	63,355,503	.....1920.
1,786,175	82,823,433	2,927,191	184,041,594	1,040,213	65,655,072	.....1919.

SHEEP, SWINE

TABLE XX.—Showing by County Municipalities the number and value of Sheep, Swine slaughtered in the year ending June 15th, 1923, together

Counties and Districts.	Sheep and Lambs.				Swine.	
	Number on hand.	Value.	Sold or Slaughtered		Number. on hand.	Value.
			Number.	Value.		
		$		$		$
Algoma	9,797	62,933	7,279	44,764	3,718	41,517
Brant	7,198	56,932	4,642	37,844	22,229	248,280
Bruce	34,755	255,970	21,168	163,591	48,253	568,802
Carleton	22,985	157,435	14,649	109,870	28,205	280,926
Dufferin	27,093	214,401	15,909	133,870	33,446	364,953
Dundas	3,001	18,453	2,210	15,085	23,734	243,258
Durham	22,545	165,016	13,006	102,366	26,954	297,429
Elgin	21,915	177,936	14,998	133,629	60,019	654,629
Essex	18,970	122,851	17,900	116,493	120,214	1,178,756
Frontenac	14,662	89,464	9,569	63,757	22,672	235,636
Glengarry	7,967	48,341	5,941	42,337	18,487	206,371
Grenville	8,686	52,759	5,703	37,514	15,501	149,270
Grey	60,381	474,999	37,317	301,605	71,134	803,406
Haldimand	15,210	110,361	10,215	73,445	23,241	269,393
Haliburton	6,895	44,381	3,902	24,904	2,082	23,435
Halton	11,050	97,373	7,743	76,446	17,667	204,179
Hastings	28,589	172,435	23,647	147,526	52,442	554,346
Huron	22,743	172,375	15,263	128,003	72,230	839,520
Kent	18,428	142,180	12,545	100,922	118,660	1,234,067
Lambton	24,735	194,245	17,669	148,937	72,990	754,285
Lanark	38,413	263,120	22,894	176,373	22,106	221,497
Leeds	12,900	90,953	9,054	68,146	24,149	248,525
Lennox and Addington	12,455	78,968	8,397	54,912	22,909	246,221
Lincoln	6,792	56,045	5,263	42,930	11,509	140,661
Manitoulin	16,215	104,098	11,959	72,934	3,411	32,949
Middlesex	20,892	163,753	14,378	114,488	68,587	751,454
Muskoka	10,536	73,503	7,994	55,858	2,865	35,013
Nipissing	12,315	75,668	8,601	52,118	5,454	63,227
Norfolk	12,308	78,611	10,216	70,009	33,617	376,147
Northumberland	16,996	130,704	11,824	90,519	35,557	406,537
Ontario	30,788	266,789	19,508	161,205	44,733	515,264
Oxford	8,410	67,198	6,702	58,548	55,668	650,393
Parry Sound	19,845	135,252	11,809	76,556	4,324	46,664
Peel	13,543	108,631	9,012	77,363	25,833	282,190
Perth	9,153	74,741	6,655	57,577	66,769	795,723
Peterborough	13,882	93,950	9,458	65,998	20,418	217,952
Prescott	5,653	32,176	4,346	22,713	17,444	182,691
Prince Edward	10,402	69,809	6,699	47,376	18,344	211,953
Rainy River and Kenora	2,735	20,694	2,588	19,419	3,628	42,977
Renfrew	60,960	375,176	36,544	249,342	24,026	240,726
Russell	5,358	33,152	3,979	24,660	19,463	206,223
Simcoe	52,742	385,113	33,252	265,190	79,010	861,982
Stormont	3,524	25,848	2,820	20,781	21,875	242,055
Sudbury	5,186	34,647	3,426	25,176	4,871	55,293
Thunder Bay	1,114	8,052	763	5,461	2,914	37,488
Timisk'g and Cochrane	4,801	37,436	2,614	21,522	4,089	52,836
Victoria	24,046	171,748	14,037	104,301	30,983	342,448
Waterloo	6,428	47,570	4,400	36,110	42,181	491,761
Welland	8,291	59,959	5,214	39,950	13,202	158,618
Wellington	34,456	284,052	22,356	207,603	70,331	789,160
Wentworth	10,483	83,978	6,586	59,348	24,095	284,131
York	28,446	234,853	17,488	144,499	56,491	635,451
The Province:						
1923	907,673	6,597,087	602,111	4,591,893	1,734,734	19,018,668
1922	986,617	6,612,959	606,122	4,262,967	1,553,434	16,550,636
1921	1,081,828	8,207,564	537,087	3,878,796	1,563,807	19,205,488
1920	1,129,084	16,191,741	493,694	6,131,024	1,614,356	32,253,804
1919	1,101,740	18,128,240	458,952	6,126,881	1,695,487	33,263,051

AND POULTRY.

and Poultry on hand on June 15th, 1923, and the number and value of those sold or with the totals for the Province for the past five years.

Swine.		Poultry of all Classes.				Counties and Districts.
Sold or Slaughtered.		Number on hand.	Value.	Sold or Slaughtered.		
Number.	Value.			Number.	Value.	
	$		$		$	
5,048	78,214	62,481	58,997	36,617	47,736	Algoma.
28,054	480,041	199,178	166,019	83,353	97,347	Brant.
58,657	1,215,858	480,738	364,413	207,780	258,196	Bruce.
32,338	576,401	363,247	320,978	182,715	255,970	Carleton.
35,074	668,584	208,176	178,630	97,414	124,915	Dufferin.
24,656	425,538	232,788	193,127	85,747	113,810	Dundas.
32,275	614,156	305,409	246,541	127,260	145,285	Durham.
65,927	1,228,946	445,416	366,552	209,542	234,328	Elgin.
110,715	1,975,027	721,491	543,492	319,505	349,374	Essex.
24,472	474,855	194,722	196,192	102,882	158,866	Frontenac.
21,122	440,691	187,926	167,516	85,726	109,569	Glengarry.
20,065	342,570	187,629	152,056	76,197	98,035	Grenville.
84,973	1,718,424	552,065	449,807	244,122	299,666	Grey.
30,127	571,557	288,450	223,405	150,215	154,016	Haldimand.
2,862	50,668	28,638	22,289	15,869	15,194	Haliburton.
24,276	461,600	179,899	172,224	95,093	126,964	Halton.
59,584	1,145,861	378,233	281,748	152,297	166,451	Hastings.
94,159	1,819,323	759,104	563,186	306,713	325,206	Huron.
101,286	1,912,858	683,371	496,421	288,278	314,654	Kent.
78,308	1,525,097	722,012	571,528	292,735	367,721	Lambton.
25,111	494,090	228,324	185,598	99,256	118,398	Lanark.
26,394	510,421	234,240	207,586	108,741	147,719	Leeds.
28,418	567,547	228,753	173,703	106,263	124,663	Lennox and Addington.
17,896	340,088	189,806	162,324	103,203	128,433	Lincoln.
5,284	84,579	37,522	36,267	20,616	31,545	Manitoulin.
85,102	1,611,887	852,163	712,772	368,171	450,495	Middlesex.
6,005	115,856	60,929	50,795	31,652	34,566	Muskoka.
6,881	134,178	53,926	43,161	27,525	29,859	Nipissing.
40,955	811,035	340,536	256,660	149,514	152,392	Norfolk.
43,478	863,081	346,938	270,529	134,573	153,961	Northumberland.
53,982	1,052,137	385,808	352,937	191,920	237,321	Ontario.
65,080	1,304,584	467,067	381,554	180,813	192,843	Oxford.
6,952	120,064	65,381	56,975	32,831	40,919	Parry Sound.
29,029	584,862	244,189	226,539	122,013	166,045	Peel.
81,194	1,709,990	502,975	400,653	201,579	217,282	Perth.
25,873	528,830	243,135	197,671	100,945	124,641	Peterborough.
20,001	397,544	172,804	142,652	92,964	113,097	Prescott.
21,304	422,319	161,944	129,614	67,694	87,550	Prince Edward.
5,012	104,516	56,943	49,480	26,057	32,662	Rainy River and Kenora.
23,719	460,640	258,969	211,773	121,544	152,421	Renfrew.
21,025	392,183	152,675	118,750	73,218	82,362	Russell.
93,219	1,878,017	578,735	473,951	266,110	344,674	Simcoe.
22,178	452,173	198,169	165,716	82,163	97,353	Stormont.
5,580	102,669	48,611	39,908	27,283	30,318	Sudbury.
3,531	79,128	47,231	38,029	18,316	19,405	Thunder Bay.
4,628	101,613	48,975	45,829	28,265	35,716	Timisk'g and Cochrane.
37,013	743,439	256,809	212,151	110,024	131,051	Victoria.
54,268	1,041,888	253,394	192,285	105,129	113,197	Waterloo.
19,443	386,696	226,305	180,782	106,960	114,660	Welland.
86,435	1,638,218	414,115	349,569	198,573	253,010	Wellington.
32,872	614,387	204,263	183,896	104,667	129,021	Wentworth.
67,624	1,370,202	460,777	415,853	230,847	306,762	York.
						The Province:
1,999,464	38,745,130	15,203,384	12,401,083	6,799,489	8,157,644	.....1923.
1,928,337	39,556,147	13,964,317	12,241,252	6,436,516	7,462,955	.....1922.
1,939,192	39,409,466	11,458,206	11,168,318	6,194,772	7,618,519	.....1921.
2,101,007	64,079,147	11,005,645	11,787,708	6,253,837	8,001,147	.....1920.
2,154,317	59,879,582	11,705,809	11,351,364	6,434,693	7,254,051	.....1919.

LIVE STOCK AND

TABLE XXI.—Showing by County Municipalities the total value of Live Stock and Poultry numbers of the various classes on hand with

Counties and Districts.	Total value of Live Stock sold or killed.	Horses on hand.				Cattle on other than	
		Stallions 2 yrs. old and over.	Mares 2 yrs. old and over.	Geldings 2 yrs. old and over.	Colts and Fillies under 2 years.	Bulls for breeding	Calves under 1 year.
	$						
Algoma	329,236	26	1,569	1,324	238	277	3,404
Brant	1,073,062	44	4,469	3,924	402	697	6,474
Bruce	3,446,874	112	12,511	8,289	2,374	1,383	25,555
Carleton	1,804,869	111	8,672	6,917	1,564	2,604	15,523
Dufferin	1,609,578	61	6,122	4,480	905	745	12,427
Dundas	905,811	40	4,350	3,769	594	1,905	7,047
Durham	1,598,221	56	7,138	5,226	1,049	933	12,127
Elgin	2,576,521	61	8,164	6,962	931	1,716	13,557
Essex	3,089,968	102	10,160	7,023	1,363	1,100	8,512
Frontenac	1,075,727	49	5,545	4,288	782	2,187	12,524
Glengarry	940,864	75	4,850	3,042	726	2,107	7,657
Grenville	775,307	50	3,818	3,061	585	1,529	6,287
Grey	4,333,555	120	15,416	10,952	2,461	1,967	32,872
Haldimand	1,324,690	35	5,554	4,514	795	742	8,987
Haliburton	180,564	18	961	856	144	256	2,849
Halton	1,226,155	42	3,995	3,426	587	765	7,828
Hastings	2,079,828	140	9,332	7,896	1,242	3,550	18,971
Huron	4,484,950	100	15,907	10,790	2,866	1,692	30,085
Kent	3,447,678	125	11,625	10,372	2,080	1,047	15,925
Lambton	3,906,239	125	12,452	8,500	2,234	1,187	23,613
Lanark	1,348,741	73	6,016	4,578	839	1,653	16,522
Leeds	1,153,999	52	5,520	4,896	659	2,502	11,531
Lennox & Add'gton	1,115,297	45	5,226	4,472	744	1,602	10,001
Lincoln	834,725	40	3,936	3,206	320	530	4,160
Manitoulin	334,859	15	1,202	904	164	200	3,363
Middlesex	4,388,592	135	16,486	11,440	2,772	2,443	29,235
Muskoka	391,121	15	1,790	1,500	247	335	4,160
Nipissing	408,100	56	1,865	1,453	266	715	4,726
Norfolk	1,520,242	61	6,791	5,693	845	1,233	8,130
Northumberland	1,764,802	88	7,777	6,981	1,086	1,753	13,156
Ontario	2,557,534	98	9,856	7,268	1,541	1,202	17,380
Oxford	2,836,270	70	9,924	8,053	1,316	2,621	15,713
Parry Sound	511,860	35	2,129	1,750	267	398	5,703
Peel	1,594,810	50	6,511	4,247	1,182	1,036	9,396
Perth	3,414,259	68	11,215	8,580	2,184	1,830	23,556
Peterborough	1,216,510	68	5,897	4,580	784	1,300	12,725
Prescott	837,515	76	4,221	2,974	684	2,316	8,161
Prince Edward	805,873	20	4,232	3,660	422	1,056	4,993
Rainy R. & Kenora	294,993	32	1,421	1,368	311	296	2,926
Renfrew	1,569,050	150	8,055	5,502	1,390	2,704	20,042
Russell	806,791	84	3,762	2,767	625	1,617	6,812
Simcoe	4,127,101	160	16,656	12,828	2,512	2,086	29,727
Stormont	856,556	32	3,887	3,116	403	1,792	5,857
Sudbury	361,170	55	1,533	1,272	292	680	4,247
Thunder Bay	212,215	40	873	904	87	245	1,859
Timis'g & Cochrane	339,324	37	1,507	1,458	108	354	2,918
Victoria	1,727,786	49	6,950	5,187	1,152	899	15,106
Waterloo	2,152,172	75	6,721	5,391	1,179	953	12,081
Welland	912,309	35	4,457	3,675	388	665	5,172
Wellington	3,846,775	95	11,744	9,088	1,982	1,412	23,654
Wentworth	1,364,097	45	5,766	4,676	688	825	7,451
York	2,925,988	116	11,730	9,303	1,801	1,666	13,866
The Province:							
1923	88,741,133	3,562	348,266	268,381	53,162	69,308	626,553
1922	90,475,235	3,569	350,998	272,442	58,843	69,077	626,353
1921	97,022,845	3,665	353,075	272,087	65,410	67,759	651,532
1920	152,213,847	3,902	351,517	266,477	82,744	65,757	655,316
1919	149,727,250	4,087	354,677	269,390	91,415	63,189	688,850

POULTRY ON HAND.

on hand in 1923, together with totals for the Province for the past five years, also the comparative totals for poultry for five years.

hand Milch Cows.		Poultry on hand.				Counties and Districts.
Steers 2 yrs. old and over.	All other Cattle.	Turkeys.	Geese.	Ducks.	Other Fowls.	
846	3,126	3,419	1,013	774	57,275	Algoma.
1,155	6,235	1,098	4,938	5,057	188,085	Brant.
15,342	34,428	13,491	17,275	17,155	432,817	Bruce.
5,190	16,485	9,693	15,585	9,504	328,465	Carleton.
6,595	13,310	2,053	12,009	6,935	187,179	Dufferin.
114	6,230	9,060	6,367	5,845	211,516	Dundas.
5,131	13,882	2,612	13,035	9,354	280,408	Durham.
4,824	14,186	12,507	10,940	15,475	406,494	Elgin.
1,769	6,712	12,250	23,585	29,169	656,487	Essex.
1,349	9,898	21,687	4,017	6,483	162,535	Frontenac.
313	7,252	13,880	1,710	1,656	170,680	Glengarry.
192	5,638	5,957	5,307	3,111	173,254	Grenville.
16,930	40,213	10,990	24,379	19,034	497,662	Grey.
2,115	7,571	8,493	6,355	10,283	263,319	Haldimand.
675	2,536	1,407	485	101	26,645	Haliburton.
2,867	7,103	3,752	7,904	5,512	162,731	Halton.
2,755	15,718	9,452	7,175	5,637	355,969	Hastings.
16,704	37,362	7,228	24,027	27,942	699,907	Huron.
9,992	17,421	10,916	17,969	27,653	626,833	Kent.
13,920	29,446	30,650	22,382	29,006	639,974	Lambton.
6,283	18,560	6,310	3,843	2,440	215,731	Lanark.
754	10,257	13,972	3,411	5,576	211,281	Leeds.
2,774	9,274	6,603	3,628	4,747	213,775	Lennox & Addington.
548	2,831	4,232	3,386	4,242	177,946	Lincoln.
1,860	4,213	3,922	1,440	897	31,263	Manitoulin.
16,760	38,176	29,776	23,180	35,488	763,719	Middlesex.
1,114	3,960	1,188	783	361	58,597	Muskoka.
1,160	4,237	277	1,097	634	51,918	Nipissing.
613	7,093	7,662	4,777	6,037	322,060	Norfolk.
3,235	13,112	7,005	6,622	8,154	325,157	Northumberland.
7,269	19,594	4,528	16,024	12,150	353,106	Ontario.
4,732	15,482	2,042	11,276	12,125	441,624	Oxford.
2,007	6,296	2,267	1,647	1,254	60,213	Parry Sound.
4,195	8,408	4,957	13,918	8,289	217,025	Peel.
7,959	23,670	1,613	17,602	17,885	465,875	Perth.
4,199	13,310	10,246	6,056	3,500	223,333	Peterborough.
330	7,216	7,280	3,720	2,113	159,691	Prescott.
241	3,559	5,616	2,224	4,222	149,882	Prince Edward.
643	2,333	3,198	1,403	475	51,867	Rainy R. & Kenora.
9,121	20,539	8,107	8,993	2,406	239,463	Renfrew.
325	5,978	1,089	4,650	4,162	142,774	Russell.
14,353	33,250	12,258	27,355	15,863	523,259	Simcoe.
92	4,925	6,872	3,210	3,454	184,633	Stormont.
759	2,816	1,328	882	553	45,848	Sudbury.
77	996	492	644	749	45,346	Thunder Bay.
213	1,767	940	886	1,085	46,064	Timisk'g & Cochrane.
7,442	18,446	5,621	12,048	5,822	233,318	Victoria.
1,476	9,108	446	5,236	5,301	242,411	Waterloo.
989	4,250	2,849	3,985	5,807	213,664	Welland.
9,971	23,216	2,117	22,226	12,021	377,751	Wellington..
1,414	6,230	2,183	6,213	7,955	187,912	Wentworth.
3,873	12,848	6,834	18,927	18,033	416,983	York.
						The Province:
225,559	650,702	364,425	467,749	449,486	13,921,724	.....1923.
234,049	671,037	336,447	446,487	440,539	12,740,844	.....1922.
249,099	717,453	291,377	413,219	363,758	10,389,852	.....1921.
245,706	745,038	267,883	395,238	311,652	10,030,872	.....1920.
260,204	773,932	327,802	426,663	377,838	10,573,506	.....1919.

LIVE STOCK AND POULTRY

TABLE XXII.—Showing by County Municipalities the numbers of the various comparative totals for the

Counties and Districts.	Horses sold.				Cattle sold.		
	Stallions 2 yrs. old and over.	Mares 2 yrs. old and over.	Geldings 2 yrs. old and over.	Colts and Fillies under 2 yrs.	Bulls for breeding.	Milch Cows.	Calves under 1 year.
Algoma	2	96	105	39	94	746	1,305
Brant	12	199	294	86	250	1,737	4,234
Bruce	26	1,036	783	226	427	2,969	1,762
Carleton	15	577	401	56	962	5,412	10,464
Dufferin	19	425	425	116	283	1,280	1,160
Dundas	9	268	234	36	737	3,738	6,482
Durham	13	508	427	36	359	1,832	3,077
Elgin	20	647	568	86	768	4,069	6,672
Essex	29	761	514	82	544	1,992	6,576
Frontenac	12	309	236	48	957	3,348	5,935
Glengarry	15	354	237	48	675	3,032	10,193
Grenville	10	223	182	52	572	3,037	4,973
Grey	30	989	770	231	662	4,112	3,857
Haldimand	12	356	297	51	419	1,649	4,137
Haliburton	2	74	72	16	88	342	614
Halton	10	315	185	25	335	1,789	3,098
Hastings	27	590	380	122	1,510	5,213	11,135
Huron	41	1,445	1,273	201	650	3,441	3,799
Kent	16	896	780	133	380	2,757	3,786
Lambton	32	1,159	923	174	412	3,152	4,348
Lanark	13	357	245	52	432	2,477	4,058
Leeds	10	296	176	31	853	4,327	7,783
Lennox & Addington	11	365	228	41	630	2,238	4,725
Lincoln	16	222	200	27	252	1,280	3,597
Manitoulin	4	110	60	13	71	375	341
Middlesex	27	1,412	1,010	178	902	5,787	10,556
Muskoka	7	127	132	31	117	850	1,616
Nipissing	6	161	62	30	353	787	923
Norfolk	16	603	284	65	589	2,973	6,808
Northumberland	17	496	402	57	847	3,285	5,313
Ontario	16	662	530	62	670	2,907	4,470
Oxford	16	742	607	86	1,022	5,275	11,607
Parry Sound	7	230	113	40	177	950	964
Peel	16	501	441	62	356	2,617	5,058
Perth	15	871	743	235	686	3,782	6,346
Peterborough	14	356	280	34	416	2,059	3,810
Prescott	12	213	224	59	898	3,362	5,578
Prince Edward	7	218	170	25	536	1,786	4,332
Rainy R. & Kenora	5	122	116	27	70	728	815
Renfrew	28	461	438	72	798	2,660	3,298
Russell	10	283	184	40	675	2,828	6,493
Simcoe	48	1,288	811	125	846	4,410	6,014
Stormont	5	225	198	42	585	3,216	7,467
Sudbury	6	130	151	19	428	1,250	1,919
Thunder Bay	4	48	72	10	75	876	962
Timisk'g & Cochrane	6	145	170	26	240	713	783
Victoria	13	490	330	62	295	1,688	2,335
Waterloo	16	555	380	58	443	2,729	3,933
Welland	8	259	188	36	375	1,564	4,498
Wellington	30	747	672	133	534	3,139	3,323
Wentworth	9	357	255	72	354	1,998	6,193
York	26	740	741	84	732	4,620	9,384
The Province:							
1923	796	25,019	19,699	3,798	27,341	135,183	242,909
1922	666	26,806	21,933	4,011	27,533	140,698	248,047
1921	699	34,329	27,693	5,219	27,972	157,100	264,812
1920	727	38,085	31,429	6,307	30,177	176,783	266,353
1919	645	39,814	31,544	6,351	29,983	183,250	260,399

SOLD OR SLAUGHTERED.

classes of Live Stock and Poultry sold or slaughtered in the year ending June 15th, 1923, with Province for five years.

or slaughtered.		Poultry sold or killed.				Counties and Districts.
Steers 2 yrs. old and over.	All other Cattle.	Turkeys.	Geese.	Ducks.	Other Fowls.	
974	983	3,624	1,193	1,000	30,800	Algoma.
2,311	2,159	697	5,628	5,112	71,916	Brant.
14,490	10,588	16,238	15,231	20,509	155,802	Bruce.
4,957	4,094	8,345	14,707	11,704	147,959	Carleton.
5,539	4,152	1,764	12,370	9,691	73,589	Dufferin.
122	896	9,050	5,355	6,372	64,970	Dundas.
5,116	4,416	2,648	9,873	13,287	101,452	Durham.
4,709	4,882	10,202	8,599	17,378	173,363	Elgin.
2,372	3,140	9,488	18,365	29,683	261,969	Essex.
1,309	2,802	18,199	4,281	8,375	72,027	Frontenac.
365	1,272	13,268	1,273	2,739	68,446	Glengarry.
190	1,273	6,030	4,782	3,194	62,191	Grenville.
16,897	12,444	11,472	21,847	28,183	182,620	Grey.
3,172	2,927	6,470	5,473	11,568	126,704	Haldimand.
926	984	1,152	375	150	14,192	Haliburton.
3,681	2,545	2,638	7,626	7,859	76,970	Halton.
1,960	4,709	8,664	7,345	8,765	127,523	Hastings.
16,693	12,536	7,950	20,472	36,170	242,121	Huron.
8,863	4,930	10,527	17,250	30,738	229,763	Kent.
13,842	11,532	26,525	20,174	27,615	218,421	Lambton.
5,533	4,428	5,397	2,133	2,682	89,044	Lanark.
932	2,133	10,637	3,331	9,517	85,256	Leeds.
2,520	2,326	5,689	4,363	6,095	90,116	Lennox & Addington.
1,220	1,480	4,192	2,897	4,858	91,256	Lincoln.
1,716	1,430	3,975	1,679	880	14,082	Manitoulin.
14,167	12,735	21,954	19,007	41,595	285,615	Middlesex.
1,180	1,594	978	762	804	29,108	Muskoka.
1,601	1,242	300	1,782	552	24,891	Nipissing.
777	1,850	5,706	4,290	8,935	130,583	Norfolk.
3,054	4,168	6,569	6,311	9,117	112,576	Northumberland.
7,665	5,715	2,910	14,190	18,283	156,537	Ontario.
5,359	5,907	1,443	9,629	14,278	155,463	Oxford.
2,166	2,131	2,653	1,282	2,034	26,862	Parry Sound.
4,518	2,644	3,492	12,653	10,354	95,514	Peel.
9,577	8,130	1,685	16,330	22,060	161,504	Perth.
4,332	3,368	9,116	5,043	4,881	81,905	Peterborough.
204	2,181	8,576	4,947	2,400	77,041	Prescott.
193	1,269	6,680	2,780	5,236	52,998	Prince Edward.
817	907	2,560	1,586	362	21,549	Rainy R. & Kenora.
8,650	6,065	7,248	8,313	3,480	102,503	Renfrew.
438	1,579	900	5,145	5,158	62,015	Russell.
12,617	9,913	15,732	24,095	24,410	201,873	Simcoe.
66	1,077	7,442	2,517	4,700	67,504	Stormont.
1,080	873	1,345	1,233	400	24,305	Sudbury.
85	345	280	500	406	17,130	Thunder Bay.
476	1,103	803	727	1,563	25,172	Timisk'g & Cochrane.
7,067	4,876	6,455	11,056	8,026	84,487	Victoria.
6,438	4,970	427	5,393	6,744	92,565	Waterloo.
1,152	1,856	1,998	3,301	7,795	93,866	Welland.
13,428	9,776	3,203	19,623	16,074	159,673	Wellington.
2,290	3,063	1,392	4,406	11,549	87,320	Wentworth.
4,781	3,884	5,994	18,634	25,775	180,444	York.
						The Province:
234,587	208,282	332,682	422,157	561,095	5,483,555	.....1923.
242,410	224,932	308,186	419,839	505,355	5,203,136	.....1922.
248,692	246,037	313,321	420,724	452,233	5,008,494	.....1921.
272,240	273,217	331,251	427,871	467,616	5,027,099	.....1920.
287,452	279,129	351,123	431,807	483,792	5,167,971	.....1919.

SHEEP AND SWINE.

TABLE XXIII.—Showing by County Municipalities the numbers by classes of Sheep and Swine on hand June 15th, 1923, and the numbers sold or slaughtered in the preceding year ending June 15th, 1923.

Counties and Districts.	Sheep and Lambs on hand.		Swine on hand.		Sheep and Lambs sold or slaughtered.		Swine sold or slaughtered.	
	Sheep.	Lambs.	Brood Sows.	All other Pigs.	Sheep.	Lambs.	Brood Sows.	All other Pigs.
Algoma	5,232	4,565	606	3,112	3,292	3,987	821	4,227
Brant	3,678	3,520	3,189	19,040	1,867	2,775	1,763	26,291
Bruce	16,966	17,789	6,424	41,829	5,116	16,052	5,757	52,900
Carleton	11,378	11,607	3,737	24,468	4,890	9,759	3,514	28,824
Dufferin	13,442	13,651	3,922	29,524	4,931	10,978	2,692	32,382
Dundas	1,511	1,490	3,110	20,624	947	1,263	2,173	22,483
Durham	11,565	10,980	3,541	23,413	4,176	8,830	3,244	29,031
Elgin	10,876	11,039	7,133	52,886	5,729	9,269	5,195	60,732
Essex	9,860	9,110	15,210	105,004	8,563	9,337	7,438	103,277
Frontenac	7,456	7,206	3,019	19,653	2,737	6,832	3,066	21,406
Glengarry	4,046	3,921	2,517	15,970	3,251	2,690	2,924	18,198
Grenville	4,456	4,230	1,996	13,505	2,209	3,494	1,822	18,243
Grey	29,584	30,797	9,110	62,024	10,915	26,402	7,722	77,251
Haldimand	7,657	7,553	2,859	20,382	3,645	6,570	2,865	27,262
Haliburton	3,635	3,260	353	1,729	1,288	2,614	439	2,423
Halton	5,829	5,221	2,479	15,188	3,233	4,510	2,014	22,262
Hastings	15,003	13,586	6,965	45,477	10,077	13,570	5,738	53,846
Huron	10,983	11,760	9,318	62,912	5,137	10,126	7,059	87,100
Kent	9,657	8,771	14,698	103,962	4,135	8,410	8,186	93,100
Lambton	12,144	12,591	8,343	64,647	5,443	12,226	6,052	72,256
Lanark	19,438	18,975	3,003	19,103	5,676	17,218	3,219	21,892
Leeds	6,412	6,488	3,188	20,961	3,012	6,042	2,905	23,489
Lennox & Add't'n.	6,388	6,067	3,112	19,797	2,940	5,457	3,652	24,766
Lincoln	3,572	3,220	1,624	9,885	2,365	2,898	1,565	16,331
Manitoulin	8,346	7,869	521	2,890	4,498	7,461	792	4,492
Middlesex	10,472	10,420	8,559	60,028	4,762	9,616	6,982	78,120
Muskoka	5,724	4,812	505	2,360	3,450	4,544	861	5,144
Nipissing	6,850	5,465	1,019	4,435	3,475	5,126	1,609	5,272
Norfolk	6,680	5,628	4,337	29,280	4,797	5,419	4,137	36,818
Northumberland	8,815	8,181	4,639	30,918	4,377	7,447	3,914	39,564
Ontario	16,318	14,470	5,603	39,130	8,062	11,446	3,696	50,286
Oxford	4,206	4,204	7,128	48,540	2,680	4,022	4,890	60,190
Parry Sound	10,622	9,223	683	3,641	4,299	7,510	944	6,008
Peel	6,947	6,596	3,287	22,546	3,470	5,542	2,811	26,218
Perth	4,533	4,620	8,451	58,318	2,438	4,217	5,885	75,309
Peterborough	7,552	6,330	2,822	17,596	3,528	5,930	3,338	22,535
Prescott	3,046	2,607	2,150	15,294	1,760	2,586	2,451	17,550
Prince Edward	5,207	5,195	2,510	15,834	2,044	4,655	2,156	19,148
Rainy R. & Kenora	1,635	1,100	610	3,018	1,156	1,432	974	4,038
Renfrew	32,033	28,927	3,846	20,180	13,008	23,536	4,140	19,579
Russell	2,878	2,480	2,671	16,792	1,492	2,487	2,437	18,588
Simcoe	27,145	25,597	10,003	69,007	12,745	20,507	7,443	85,776
Stormont	1,869	1,655	2,836	19,039	1,290	1,530	3,296	18,882
Sudbury	3,052	2,134	814	4,057	2,207	1,219	965	4,615
Thunder Bay	623	491	562	2,352	353	410	400	3,131
Timis. & Cochrane	2,663	2,138	695	3,394	1,226	1,388	670	3,958
Victoria	12,328	11,718	3,994	26,989	4,702	9,335	3,347	33,666
Waterloo	3,289	3,139	5,561	36,620	1,463	2,937	3,377	50,891
Welland	4,312	3,979	1,933	11,269	1,504	3,710	1,993	17,450
Wellington	16,895	17,561	8,895	61,436	7,392	14,964	6,197	80,238
Wentworth	5,099	5,384	3,257	20,838	2,733	3,853	2,003	30,869
York	14,642	13,804	7,164	49,327	6,674	10,814	4,842	62,782
The Province:								
1923	464,549	443,124	224,511	1,510,223	217,159	384,952	178,375	1,821,089
1922	501,319	485,298	198,871	1,354,563	217,989	388,133	172,947	1,755,390

NOTE.—Sheep and Swine were not so classified in previous years.

FARM PROPERTY, IMPLEMENTS AND LIVE STOCK.

TABLE XXIV.—Showing by County Municipalities of Ontario the value of farm lands, buildings, implements and live stock for the year 1923, together with the totals for the Province for the past five years.

Counties and Districts.	Land.	Buildings.	Implements.	Live Stock on hand.	Total.
	$	$	$	$	$
Algoma	5,227,660	1,923,084	802,800	1,117,391	9,070,935
Brant	11,689,861	7,089,525	2,181,317	2,840,814	23,801,517
Bruce	30,742,026	16,284,437	4,982,353	7,825,067	59,833,883
Carleton	28,327,803	12,883,616	4,390,830	5,857,963	51,460,212
Dufferin	12,367,154	8,331,234	2,479,145	3,791,274	26,968,807
Dundas	12,067,224	6,778,758	2,852,027	3,436,929	25,134,938
Durham	13,300,992	8,133,888	2,757,090	4,059,403	28,251,373
Elgin	23,996,886	13,125,579	4,150,054	6,043,606	47,316,125
Essex	38,934,857	16,442,528	5,377,300	5,609,339	66,364,024
Frontenac	11,266,652	5,470,626	2,207,075	3,365,092	22,309,445
Glengarry	13,348,630	6,588,115	2,621,340	3,342,692	25,900,777
Grenville	7,968,013	4,897,616	1,836,541	2,428,946	17,131,116
Grey	34,181,828	21,134,046	6,358,977	9,741,722	71,416,573
Haldimand	12,911,316	7,741,015	2,779,056	3,291,760	26,723,147
Haliburton	1,792,870	704,649	317,721	600,522	3,415,762
Halton	13,698,280	7,765,724	2,155,408	2,870,116	26,489,528
Hastings	19,538,432	10,199,046	3,955,785	5,790,035	39,483,298
Huron	34,388,194	20,317,539	6,508,876	9,877,537	71,092,146
Kent	46,351,474	19,541,853	6,715,844	7,293,197	79,902,368
Lambton	35,334,600	16,467,454	5,727,608	8,060,585	65,590,247
Lanark	12,011,993	5,890,041	2,351,103	3,946,296	24,199,433
Leeds	13,509,200	7,261,401	2,741,956	4,108,085	27,620,642
Lennox and Addington	11,454,217	6,468,051	2,506,021	3,254,786	23,683,075
Lincoln	16,206,427	7,953,774	2,308,728	2,136,494	28,605,423
Manitoulin	2,951,090	999,682	482,167	864,580	5,297,519
Middlesex	45,352,457	24,340,552	7,875,767	10,989,888	88,558,664
Muskoka	3,745,080	1,788,642	805,404	1,159,767	7,498,893
Nipissing	3,712,041	1,700,184	874,220	1,201,940	7,488,385
Norfolk	15,089,165	8,612,683	3,192,494	3,924,465	30,818,807
Northumberland	15,725,383	9,716,193	3,349,017	4,737,933	33,528,526
Ontario	21,377,601	12,279,595	3,793,656	6,138,689	43,589,541
Oxford	26,433,534	16,267,287	5,547,103	7,782,553	56,030,477
Parry Sound	4,296,598	2,046,769	946,108	1,535,704	8,825,179
Peel	17,025,978	9,838,312	2,909,968	3,861,790	33,636,048
Perth	25,991,796	18,017,210	5,556,444	7,483,405	57,048,855
Peterborough	13,694,003	6,878,968	2,375,090	3,376,642	26,324,703
Prescott	14,874,363	7,087,398	2,569,800	2,777,265	27,308,826
Prince Edward	9,316,170	5,615,682	2,377,235	2,344,408	19,653,495
Rainy River and Kenora	4,709,701	1,286,712	659,590	943,254	7,599,257
Renfrew	23,045,863	8,808,768	3,782,589	4,856,631	40,493,851
Russell	12,523,519	5,453,277	1,780,849	2,550,325	22,307,970
Simcoe	35,667,696	20,830,535	6,734,611	9,809,682	73,042,524
Stormont	9,867,702	5,804,514	2,399,014	2,875,525	20,946,755
Sudbury	4,183,210	1,507,594	812,398	1,050,848	7,554,050
Thunder Bay	5,051,700	1,337,168	708,812	752,237	7,849,917
Timiskaming and Cochrane	7,521,154	1,656,314	1,067,026	1,041,671	11,286,165
Victoria	15,754,279	7,274,300	2,710,681	4,253,146	29,992,406
Waterloo	16,460,830	11,041,605	3,057,719	4,032,188	34,592,342
Welland	12,475,037	7,161,080	2,526,972	2,520,156	24,683,245
Wellington	25,467,621	17,465,802	4,877,876	7,674,050	55,485,349
Wentworth	17,446,786	9,193,694	3,030,258	3,534,484	33,205,222
York	34,282,687	16,855,998	5,165,318	7,263,378	63,567,381
The Province:					
1923	904,659,633	480,260,117	163,033,141	222,026,255	1,769,979,146
1922	880,896,544	479,451,680	163,830,154	213,840,118	1,738,018,496
1921	851,300,059	484,188,897	159,913,871	218,123,685	1,713,526,512
1920	861,116,234	467,010,867	153,780,378	326,737,337	1,808,644,816
1919	848,767,153	426,649,086	137,310,618	339,607,932	1,752,334,789

PART II.—CHATTEL MORTGAGES

Table showing by County Municipalities of Ontario the total number and amount of Chattel mortgages on record and undischarged on December 31st, 1923, against (1) all occupations; (2) farmers; together with totals for the Province for the past four years.

Counties and Districts	Chattel mortgages against all occupations				Chattel mortgages against farmers.			
	To secure existing debt		For future endorsation.		To secure existing debt		For future endorsation.	
	No.	Amount.	No	Amount.	No.	Amount.	No	Amount.
		$		$		$		$
Algoma	196	192,998	...	.....	91	48,290	...	.....
Brant	181	468,379	...	.....	75	71,456	...	.....
Bruce	248	247,423	1	450	152	152,120	...	.....
Carleton	315	460,957	2	19,500	45	47,439	...	.....
Cochrane	141	282,643	...	.....	16	13,329	...	.....
Dufferin	65	109,155	...	.....	38	24,268	...	.....
Elgin	217	221,440	...	.....	106	77,631	...	.....
Essex	355	429,576	...	.....	126	127,750	...	.....
Frontenac	264	271,389	...	.....	169	98,646	...	.....
Grey	275	259,210	...	.....	193	89,334	...	.....
Haldimand	101	96,934	...	.....	53	44,852	...	.....
Haliburton	27	24,499	...	.....	20	6,970	...	.....
Halton	61	76,311	...	.....	24	21,462	...	.....
Hastings	414	389,102	...	.....	214	126,501	...	.....
Huron	119	159,919	1	4,500	66	77,207	1	4,500
Kenora	37	91,627	...	.....	13	4,981	...	.....
Kent	325	*643,769	...	.....	203	221,095	...	.....
Lambton	173	204,892	...	.....	71	78,865	...	.....
Lanark	112	90,884	...	.....	44	29,557	...	.....
Leeds and Grenville	290	284,893	...	.....	224	234,863	...	.....
Lennox and Addington	132	317,398	3	1,512	79	56,519	3	1,512
Lincoln	151	316,530	...	.....	65	61,146	...	.....
Manitoulin	108	55,143	...	.....	84	36,965	...	.....
Middlesex	220	256,970	...	.....	79	79,618	...	.....
Muskoka	108	350,450	...	.....	49	18,943	...	.....
Nipissing	219	407,392	1	5,000	111	87,970	1	5,000
Norfolk	121	84,936	1	7,350	83	46,068	...	.....
Northumberland and Durham	297	319,027	...	.....	157	152,258	...	.....
Ontario	134	141,916	1	40,000	71	39,864	...	.....
Oxford	144	149,319	...	.....	82	93,124	...	.....
Parry Sound	143	160,993	...	.....	59	28,385	...	.....
Peel	44	97,443	...	.....	27	29,448	...	.....
Perth	108	158,931	3	47,728	53	44,773	...	.....
Peterborough	167	156,989	...	.....	63	28,455	...	.....
Prescott and Russell	219	206,656	...	.....	134	108,686	...	.....
Prince Edward	141	137,591	...	.....	92	78,881	...	.....
Rainy River	122	140,128	...	.....	64	31,618	...	.....
Renfrew	148	262,654	2	489	77	131,906	...	.....
Simcoe	444	447,713	...	.....	288	187,793	...	.....
Stormont, Dundas and Glengarry	†344	349,745	14	4,590	242	221,723	6	1,967
Sudbury	445	355,105	3	5,500	277	119,117	...	.....
Thunder Bay	145	284,716	...	.....	42	42,012	...	.....
Timiskaming	176	267,189	2	5,000	51	17,686	...	.....
Victoria	69	62,128	...	.....	47	37,587	...	.....
Waterloo	165	297,118	3	1,150	38	47,512	...	.....
Welland	161	164,448	...	.....	47	29,765	...	.....
Wellington	167	305,583	...	.....	81	153,868	...	.....
Wentworth	401	511,961	...	.....	60	70,345	...	.....
York	3,488	3,410,660	...	.....	160	138,458	...	.....
The Province:								
1923	12,647	15,182,832	37	142,769	4,705	3,817,109	11	12,979
1922	12,244	15,091,023	56	195,079	4,705	3,724,672	29	34,624
1921	10,375	13,998,014	47	293,036	3,743	3,016,280	15	32,051
1920	8,775	12,975,031	36	607,524	3,042	2,698,383	17	22,802

* Including one theatre company for $201,856. A similar instrument was filed in Lambton, Lincoln, and Oxford, but is not included in the totals for those counties.

† In addition to these the County Court Clerk reported 232 instruments as having been filed, amounting to $11,600,234. We find that these included many renewals, and that the bank guarantee to one company on these securities was $3,193,659 on December 31, 1923.

Ontario Department of Agriculture

EIGHTEENTH ANNUAL REPORT

OF THE

HORTICULTURAL SOCIETIES

FOR THE YEAR

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
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OFFICERS FOR 1924

President.....J. E. Carter, Guelph.
1st Vice-President.....Geo. Simpson, Ottawa.
2nd Vice-President.....F. A. Kent, Port Perry.
Secretary and Editor.....J. Lockie Wilson, Toronto.
Treasurer.....C. A. Hesson, St. Catharines.
Auditors.....Lionel Godson and W. J. Evans, Toronto.
Honorary Director.....Rev. W. M. MacKay, Weston.

Directors:—District 1, Dr. A. T. Morrow, Maxville; District 2, C. W. Lott, Trenton; District 3, Geo. Vickers, Barrie; District 4, Rev. Geo. W. Tebbs, Burlington; District 5, Wm. Hartry, Seaforth; District 6, T. J. Hannigan, Guelph; District 7, W. E. Saunders, London; District 8, G. L. Klostermann, Windsor; District 9, C. W. Byam, New Liskeard; District 10, W. P. Bailey, Fort William.

Representatives to Royal Winter Fair:—J. E. Carter, Guelph; Lionel Godson, Toronto; W. J. Evans, Toronto.

Representatives to Canadian National Exhibition:—Lionel Godson, Toronto.

Representative to Canadian Horticultural Council:—J. E. Carter, Guelph.

TREASURER'S REPORT FOR 1923

Receipts

Balance as per statement of Jaunary 30th, 1923	$286 17
Affiliation fees, account year 1923	217 44
Affiliation fees, account year 1924	177 00
Assessment dues	212 47
Bank interest to November 30th, 1923	3 39
Total receipts	$896 47

Expenditures

Perthprint, printing and numbering 200 banquet tickets	$2 50
G. A. Walkey, officers' and delegates' badges	28 71
King Edward Hotel, account banquet	17 60
John Strathdee, account orchestra	15 00
Clerical services at convention	45 00
Caretaker's services at convention	10 00
Honorarium to secretary, $100.00; to treasurer, $25.00	125 00
American Civic Association, affiliation fee for 1923	5 00
Perthprint, 700 letterheads and envelopes	27 50
Charles Potter, 100 photo slides	42 20
Legislature Restaurant, meals at meeting of the Board	1 75
Canadian Horticultural Council, account affiliation fee for year	100 00
Peninsula Press, 1,000 member's cards, $9.00; card tray and index, $1.75	10 75
Keating's Book Store, receipt forms	70
Bank charges on fees and assessment cheques	2 95
Treasurer's account for postage and war stamps	4 78
Total disbursements	$439 44
Balance on hand in bank to February 5th, 1924	457 03
	$896 47

St. Catharines, February 5th, 1924.

C. A. Hesson,
Treasurer.

ONTARIO HORTICULTURAL ASSOCIATION

ANNUAL CONVENTION

The Ontario Horticultural Association held its Eighteenth Annual Convention at the King Edward Hotel, Toronto, on February 7th and 8th, 1924. In the absence of the president, Mr. J. P. Jaffray, who had been appointed by the Ontario Government to encourage immigration from Scotland, Mr. Geo. Simpson, second vice-president, acted as chairman.

PRESIDENT'S ADDRESS

J. P. Jaffray, Galt

In the "Handbook of Ontario", published under the direction of the Minister of Agriculture in 1920, there appears the following paragraph:

"There has been a most remarkable development of horticultural societies in Ontario in recent years, and there are now over one hundred live organizations with a membership of 20,000 working energetically for the beautification of cities, towns, villages and rural districts, a recent amendment to the Act permitting townships to organize a society with a membership of at least twenty-five."

This official acknowledgement of the value of the Ontario Horticultural Association to the province was most gratifying to your directors for the year named. But if the most "remarkable development" of 1920 was cause for extreme congratulation what may not be said in praise of the movement for the adornment of communities and homes as we appraise it to-day, both in urban municipalities and rural parts? Instead of 20,000 members we are now able to point to 50,000, an army of civic improvers held together by the cohesive power of a common purpose, a purpose the most indifferent must applaud. These years, since the armistice was signed on November 11th, 1918, have been trying ones for our people. They have been marked by uncertain trends in business circles; by contraction in outputs of manufactured goods; by more or less unemployment in our industrial centres; by the struggles of our farmers, brought about by the chaotic conditions existing in Europe, to make ends meet. Had this association marked time since 1919-20 it would undoubtedly, in the circumstances, have held the confidence of its members and stood out, as in pre-war days, the great moving spirit in striving for a more beautiful Ontario. To have more than doubled its membership during four years of depression must surely be regarded as an abnormal record for a public service body. And truly our labours constitute real service in the public interest, freely given in a most worthy cause. It bespeaks love of country and a higher life for the people of this province. It knows, I am delighted to say, no boundary line between populous centres and the rural parts. In view of all that has been achieved in our eighteen years of existence we cannot but look hopefully to the future for the attainment in full of those objects that make the fundamentals of this association. The outlook is bright with promise. Organized effort with us is organized success. We have only to follow in the steps of the leaders of the

past—fine characters, all of them—to reach every corner of the province in our crusade for an adorned Ontario that will truly reflect the aesthetic aspirations of our people. All we need do is to maintain our present high level of enthusiasm; to persevere in love of education, and accomplishment dear to the hearts of horticulturists. We can reach whatever goal we seek by continuing in the wise course successive conventions have mapped out for us. It may be impossible to duplicate the amazing growth of the past four years; still with the thought of a more beautiful Ontario permeating all classes in city, town and country, I am of the opinion than we should anticipate a membership of 100,000 within fifteen years, and shape our administration to that end.

During the past twelve months, evidences of public approval of the activities of our societies have multiplied. The sentiment held with regard to their place in civic life is made plain in increased municipal grants, some given in acknowledgement of street adornment, such as flower beds at important intersections produce. Where wise and aggressive leaders exert their influence this feature of our work is bound to challenge the admiration of citizens and place in our hands collective support in the materialization of plans growing out of local conditions and containing the essence of this organization's self-imposed task. As a matter of fact we are not far from the scoring line, or starting point, of our campaign of education in town and country. The trial plot has only recently become popular in some cities. Your directors hope to see the excellent example set by St. Thomas, and followed by St. Catharines, Guelph and Galt, grip other city organizations until every plant of note is represented in the civic life of the province, leading up, as some possibly hope, to a Botanic garden in a central district, an enterprise that should not be beyond the vision of Ontario. Out of the abundance of this association's enthusiasm should come the propelling force necessary to attain the peak of horticultural endeavour. Enough has been done in the eighteen years of consistent agitation for civic betterments to warrant the public's reliance upon our members to do those things that will enhance Ontario's reputation in the eyes of tourists, who are credited with spending approximately $20,000,000 in the province during the year just closed. Bearing in mind this tourist traffic, it is very gratifying to record the growing desire of the men and women on our farms to participate in the movement that absorbs the attention of this association. Our rural sections, with good roads, now lend themselves to horticultural embellishment. We know that the sentiment for more beautiful home surroundings in the country is growing daily, and it is my hope, and as well the hope of my fellow directors, that urban societies will co-operate with our friends of the townships in pursuing a course that will start American tourists on their return journey completely satisfied with their sightseeing in Ontario, and in a mood to carry to friends and neighbours an absorbing recital of the natural and man-created beauties of this province. The blending of urban and rural interests which this association has undertaken for the common good must merit the hearty approval of citizens generally. It is a fusion that constitutes a triumph over sectionalism—and that is something of a gain.

At this point I am moved to congratulate our leaders in St. Thomas and Guelph on the distinct success attained in the holding of their international shows. Nor must I omit praise for the managements responsible for the displays in the horticultural departments of the Canadian National Exhibition and the Royal Winter Fair. Together with the others, they emphasized the great advances in horticulture marking the few years that have elapsed since our

lovers of flowers earnestly entered this most inviting field to excel in producing specimens of plant life not excelled in even tropical or semi-tropical countries.

As many of you are aware, it was the long-continued agitation bearing on the billboard nuisance that resulted in departmental regulations that partially abolished the same. Along the provincial highways they are no longer on the street line. Offensive obstruction of sightly natural scenery is no longer tolerated.

Hon. Jno. S. Martin, Minister of Agriculture.

I ask this convention whether it is not of the opinion that all abutting rural and semi-rural properties within municipalities receiving grants from the Province for provincial, county or county roads should not come under the provisions of the amendment to the Highways Act that has already resulted in the reduction of the disfigurement chargeable to advertisers favouring the billboard to catch the eye of consumers. While on this subject allow me to suggest, not, however, in a spirit of disloyalty to our glorious maple tree, that the elm should appear more frequently on city and rural roads. Cannot we agree with some foresters that the time is also ripe for the planting of nut trees on our highways?

Another topic that should have a place in our plans in future is the care of rural cemeteries. It is admitted that a few are sightly, showing thoughtful maintenance and a regard for the memories of the pioneers who laboured for their generations and the ones to follow. It needs concerted effort to overcome the indifference shown in respect to the upkeep of God's Acre in many a township. Here is a field for part of the activities of our rural Societies. They can crystallize public sentiment in their respective districts into action that will remove the reproach that neglected graveyards—some forcing attention on well-travelled roads—inevitably bring. Our young Canadians, as in other spheres, can be taught love of order and regard for local history through community projects having for their object the transformation of a neglected rural cemetery into a sightly place, comporting with its surroundings. Is this assurance not an incentive to function in the direction indicated?

A call by your legislative committee on Hon. John S. Martin, Minister of Agriculture, for the purpose of discussing with him the financial position of the association, resulted in an excellent understanding with the Minister, who was not slow to recognize the usefulness of this organization in its very important field. I feel that our request for assistance in the administering of our affairs by your Board of Directors—the voluntary efforts of our tens of thousands of members receiving official recognition—will have the sympathetic consideration of the Minister and the government.

The programme for this Eighteenth Annual Convention will admit of discussion on all the topics that touch the imagination of our members and, therefore, it is possible for me to refrain from saying much in eulogy of members and societies engaged in justifying the claim of the Ontario Horticultural Association to pre-eminence in its field—its membership far surpassing that of any similar organization in either the new or old world. The abounding enthusiasm of members make the admonition, "Persevere in Well Doing," almost unnecessary. To assist in making Ontario the beauty spot of North America I feel is our purpose. This is a fruitful field, let us cultivate it to the greatest possible extent.

In closing, I deem it but fair to say that recognition of the services of our efficient secretary, Mr. J. Lockie Wilson, is due from your president and the directors. As always, he was ready with sound advice. On no occasion has he been found lacking in a just appreciation of the duties of his important position in our growing association.

Moved by Rev. Mr. Tebbs, seconded by Rev. Mr. Scott, that a message be sent to Mr. Jaffray expressing the gratification of the Ontario Horticultural Association that he has been selected to this honourable position of representing the Ontario Government in the British Isles. Carried.

REPORT OF SUPERINTENDENT

J. Lockie Wilson, Toronto

Marvellous has been the progress of the horticultural societies of this province, both as to increased membership and the work they have undertaken to perform, and, what it is satisfactory to note, there has never been the slightest tendency to a check in their advancement. Our societies which have been in existence for over eighteen years have already a membership far exceeding that of any other organization on this continent engaged in kindred work. Taking

the figures for 1922 (those for 1923 not being yet available) the total membership for that year was 46,519 as compared with 39,956 the year previous and the total expenditure $123,489, as against $112,132, the increases being, membership 6,563, and expenditure $11,358. Deducting the legislative grant of $20,000, and comparing it with the net expenditure of $103,489 by the societies, the latter put up over five times as much as they received from the government. You will note that only 3,481 additional members are required for 1923, to attain the goal we set in 1921 of 50,000 members for 1925. When the full

J. E. Carter, President.

returns for 1923 are received, they will show that we have a total membership of over 50,000 enrolled two years in advance of the time predicted.

Twenty-four societies were organized in 1923, among them several township ones. Oxford County has made a reputation for itself by having a horticultural society in nearly every township, and most of these have a membership of seventy-five or over. We hope that Oxford's example will be an incentive to other counties to do likewise. There is a great unoccupied field in this province where the good seed should be sown and bear fruit, and a few interested and energetic members in each locality would soon work a wonderful revolution in both rural and urban centres where as yet little has been accomplished towards removing the somewhat barren conditions which are so often the outstanding feature of rural homes. Improvement of home surroundings particularly in the countryside will, I am confident, be the means of encouraging boys and girls to

live in God's open spaces where sunshine and shade will tend to the upbuilding of a more healthful and happy citizenship far from the smoke, dust and clamour and the jostling crowds in the city's streets.

It is scarcely possible to estimate the effect of environment on the lives of the people. Our homes and our gardens deaden or brighten our lives. Where treeless, shrubless, vineless homesteads are, there lies the work of our members with their wonderful gospel of uplift and happiness. Refined desires quicken the action of the mind and give zest to industry. Is the duty of governments to only protect the lives and property of their citizens and foster industries? I trow not. Something greater far must enter into life's majestic span fitted to create and centre true nobility in man. After all, our lives are as the grass that grows in the field. It springs up in the morning, and in the evening it is cut down. Short indeed is the span between our natal day and our crossing the Great Divide, and I know, and you know, that in that short span there is only one kind of life worth living and that is a life of service. Have we brightened our homes while here; have we helped to make our neighbourhood a little better than we found it; have we ever planted a tree under the shadow of which in after years some way-worn traveller may rest and bless the thoughtful planter?

In connection with the work you are doing I quote the words of a letter written to me by Mr. J. Horace McFarland, president of the American Civic Association:

> My visit to Ontario convinces me of the greatness of the opportunity before Canadian citizens and the high character and earnest purpose of those serving the public through the medium of your horticultural societies.
>
> The opportunity is yours of profiting by the all-too-many errors of the cities in the States which have gone ahead in development regardless of true civic advance, and of the individual efficiency of the citizen. Now, in a rapidly increasing ratio, these American cities are realizing their errors, and are extensively paying the high price of hindsight, having long ago foolishly disregarded the economy of foresight.
>
> I conceive that the highest function of a municipality is to provide for the happiness and the efficiency of its citizens. The unhappy citizen is not efficient, and the inefficient citizen is a tax on others. Thus the answer to the question of Cain, "Am I my brother's keeper?" is constantly and affirmatively made in connection with the highest economic interests of a community as well as of an individual.
>
> Under your wise supervision and in connection with the high public spirit which I know exists, the cities of Ontario should become the models of the American continent. They have the opportunity to control the city plan, so that it may be a wise one in each community, tending toward a sane and wholesome development, and with sufficient open spaces to provide the minimum of an acre for every hundred inhabitants of publicly owned and publicly used recreation spaces. The opportunity exists to greatly improve conditions as to city paving, sidewalks, trees, poles, wires, and the like, using the dreadful examples to be seen across your southern border as things to avoid. You have the opportunity to educate your own people in the duties and advantages of good citizenship. You have a smiling climate and a flora which can be made available to all the people through the wise extension of public grounds, parks, and flower gardens. I may commend to you most heartily the sentiment of a gifted vice-president of the American Civic Association that we are to work for "beauty that supplies a daily need and not a Sunday pride." I may also urge upon free and prosperous Ontario that insistence of that great Englishman, William Morris, that there should be beauty for the few no more than freedom or education for the few.

These words of wisdom uttered by the gifted president of the American Civic Association should receive our thoughtful consideration.

Tree Planting on Country Roads and Village Streets

I have been asked by some of our members what are the best kinds of trees to plant on country roads and village streets. The following varieties have been found to do well in many localities: Maples, preferably hard; American elm; white birch; oaks and many kinds of evergreen. The distances apart that they should be planted are: Maples, twenty to thirty feet; American elm

and oaks, twenty-five to forty feet; white birch, twenty-five to thirty-five feet. Horse chestnut trees are, I think, quite unsuitable for ornamental planting.

Acting on the resolution passed at our last convention regarding increasing the funds of the association by assessing each member of the horticultural societies one cent, to be used in educational and development movements, a circular was sent out by the treasurer, Mr. Hesson, to all the societies notifying them to this effect and requesting their co-operation. A number of the societies have already sent in their fees, and our efficient and painstaking treasurer will embody the results to date in his financial statement to be presented to you.

In Memoriam

A good man and true passed from our midst when J. A. Middleton entered into his rest. As a director for several years he was always found ready to assist the societies small and great alike by timely advice and counsel, and he was personally the means of organizing several societies in the district which came under his supervision. At the directors' meeting held in November, I was instructed to convey to his widow and family our association's sympathy with them in their irreparable loss. To Prof. Macoun also a letter of condolence was written on the occasion of the death of his beloved wife, who had been his helpmate for so many years. Everyone who knows Mr. Macoun, who has worked so long and faithfully in the interests of horticulture, will join in sympathy with him in his severe affliction.

We all regret the inability of our president, Mr. J. P. Jaffray, to be with us, owing to the fact that the government, recognizing his energy and ability has appointed him as Immigration Commissioner to Scotland.

While we miss the guiding hand of one who has been connected with our association since its inception and has filled many offices with honour to us and credit to himself, we are all proud of the fact that he has been called to fill this responsible position.

Marked improvement is shown in the work of our societies in eastern Ontario. This is due largely to the splendid work that is being accomplished by one of our vice-presidents, Mr. Geo. Simpson, Ottawa. Eastern Ontario is also greatly indebted to Mr. F. C. Nunnick, chief of the Extension Division of the Central Experimental Farm, who addressed a number of meetings in different parts of the province, and supplied beautiful slides belonging to his department, to be used at meetings of societies which applied for them. It would seem invidious to make special mention of these two leaders, when we have in all parts of our province so many untiring workers, who in season and out of season are doing yeoman service in the cause of civic improvement and horticulture, but the work of these two members is outstanding.

Lecturers

We sent out during 1923 lecturers to nearly one hundred branches, who also assisted in establishing new horticultural societies. These speakers utilized the sets of slides purchased by our association.

I have had some correspondence with the secretary of the Canadian Horticultural Council regarding the affiliation fee in that body, who evidently does not understand very clearly the position of our association. I am of opinion that the amount asked from us, $200 yearly, is out of proportion to our finances. The Ontario Horticultural Association receives no grant from the government, does not come under the Association's Act, and is entirely dependent for its

maintenance on the small voluntary affiliation fees of the horticultural societies in the province. There are 186 of these, and more than one-fifth of them have neglected, or refused, to affiliate with us, and we cannot compel them to do so. While, on the face of it, our horticultural societies have 50,000 members, yet the membership of our central association, as stated above, is limited. At last year's convention, without giving our finances sufficient thought, the $200

Beautiful Section, Grounds C. N. E.

fee was ordered to be paid. Not having sufficient funds on hand, our treasurer was able to forward only $100 on account, following the instructions of the board to pay the balance when sufficient funds were available.

Ours is an association composed mostly of amateurs and we are in an entirely different position from the large commercial firms and other associations which receive government grants and which are chiefly responsible for the organization of this council, and who, doubtless, will receive substantial financial benefits therefrom.

The affiliation fee that the Ontario Vegetable Growers' Association, composed solely of commercial market gardeners, pay, is only $75, and that institution receives a substantial government grant. The Fruit Growers' of Ontario pay an affiliation fee of $100, and they also are assisted financially by the government to the extent of $1,700. It is for the delegates at this convention to fix the amount of the affiliation fee for 1924.

I would also respectfully recommend that we apply to the Ontario Government for the incorporation of our organization under the Act respecting Agricultural Associations, and you will then be in a position to approach the govern-

ment as other Associations have done and possibly receive a grant for the educational work you are doing.

You asked at the last convention to have the list of the secretaries and presidents of our societies printed in the Annual Report. I shall do my part to endeavour to have your wishes carried out.

I am confident that your deliberations will prove as in the past an inspiration to the delegates here assembled and to the members of our horticultural societies throughout the province. I am pleased to note the large number of lady delegates present. Without their co-operation and inspiration we could not have been so successful in the upbuilding of the greatest organization in the land. Lady directors there should be on all our boards; without their helpful suggestions our efforts would fail, and I am looking forward to that happy time when every home in our fair province, be it ever so humble, will become a bower of beauty made so by tree and shrub and plant and flower, where the boys and girls will become interested in all that goes to make a peaceful, happy and contented people.

To those who assemble at our conventions, earnest and painstaking in the work you have in hand, I wish you God speed in your great endeavour. Much, indeed, have you accomplished, much remains to be done. The field is white and ready for harvesting and the ingathering must not cease, and I am confident that a myriad of co-workers will arise who will continue to devote their untiring energies to the cause we have in hand. The time and the theme call for men and women of energy, enthusiasm, power and repute, and I trust that puny mediocrity and self-centred commercialism will not be allowed to prevail in our midst. It has not in the past, and I trust it will not in the future. I thank you for the courtesy you have ever extended to me for the work I have endeavoured to accomplish in my humble way in your behalf.

The following were appointed as the committee on Mr. Wilson's report: Rev. Mr. Scott, convener; Mr. W. P. Bailey, Fort William; Mr. J. B. Spencer, Ottawa; Mr. G. L. Klostermann, Windsor; Mr. T. D. Dockray, Toronto; Prof. R. R. Graham, Guelph; Mr. Wm. Hartry, Seaforth; Mrs. Flood, Smith's Falls; Dr. F. E. Bennett, St. Thomas. The convention approved of the committee.

Rev. G. W. Tebbs then gave a number of lantern slides illustrating the great improvement made in Burlington since the Horticultural Society has been organized there.

J. E. Carter: Two years ago we decided to join the Canadian Council of Horticulture, and I was appointed representative. The affiliation fee is $200. This council is going to issue to each of your members the most complete report on horticulture which has ever been issued by any organization in the world.

COMMITTEES

The following committees were appointed:

Publicity and Press: J. B. Spencer, Ottawa; Dr. Bennett, St. Thomas; Mr. O'Rourke, Woodstock; T. D. Dockray, Toronto.

Reception: Lionel Godson, Toronto; Wm. Hartry, Seaforth; Mrs. Bonnistell, Belleville; G. L. Klostermann, Windsor.

Resolutions: J. E. Carter, Guelph; W. J. Evans, Toronto; Mrs. Shumaker, Hamilton; H. Hartry, London; W. T. Macoun, Ottawa; C. H. Fuller, Windsor.

Nominating: L. Godson, Toronto; R. R. Graham, Guelph; A. M. Bryson, Otterville; Col. Turnbull, Hamilton; Hon. Mr. Motherwell, Ottawa; J. M. Pearen, Weston.

STREET TREES AND THEIR RELATION TO HORTICULTURE

J. B. Spencer, B.S.A., Ottawa

We have discovered in Ottawa that we get very few horticultural society members from the older parts of the city. It is observed also that practically all of the prizes taken at our shows are won by flowers grown in the newer sections. Occasionally a garden in the heart of the city will be entered in the garden competition, but it is seldom that such a garden wins a prize, and not infrequently entered gardens are afterwards withdrawn from the contest.

A careful study of the cause of this lack of gardening interest has led to the one and only conclusion, that over-shading, more particularly by street trees, and the sapping of nourishment by their hungry roots, makes the growing of lawns, shrubbery and flowers practically impossible. This is particularly the case on the front lawns, with the result that many of the older streets have no horticultural ornamentations to brighten and cheer the home surroundings. Not only is horticultural practice thus discouraged, but it is only by resodding every few years that decent grass lawns are maintained.

The Ottawa Horticultural Society, like others in the province, carries on its work largely with public money. A consciousness of the obligation of the society keeps the beautification of the city in the forefront of its activities. Finding their efforts practically blocked over a large portion of the city by reason of over-shading, the Society, about five years ago, began a campaign to secure better street tree regulations. At the conclusion of a series of horticultural meetings a public supper was held, at which representatives of the Board of Trade, Rotary Club, Kiwanis Club, Board of Education, Retail Merchants' Association, and other bodies attended. At this supper the disadvantages of the existing system of uncontrolled planting by residents was explained, and an improved, controlled street tree policy was outlined and recommended. The representatives of the organizations present gave a hearty assent to the movement. A committee representing the society and the city was formed, and a few months ago the primary object was reached in the passing of a new street tree by-law. This measure undertakes to control street tree planting and provides for the care and removal of trees, although it does not go to the length of planting trees as a civic enterprise.

The new by-law provides for the appointment of a street tree inspector, from whom permission must be secured before a street tree can be planted. This officer shall decide the distance the trees shall stand from the sidewalk and from street intersections. A minimum of thirty feet between trees is fixed. The by-law forbids the planting of butternut, cherry, chestnut, Manitoba maple, sassafras, walnut, cone-bearing evergreens, and poplars and willows of all kinds. The street tree inspector is given authority to remove trees that are dangerous to pedestrians, and others that in his judgment should be removed. Residents are given forty-eight hours notice of the removal of trees opposite their property. It is further provided that on streets partly planted, additional trees must be of the same variety as the majority of those already growing on the street. This by-law, it will be observed, provides the possibility of a wonderful advance in city beautification. Much will depend, however, on the qualifications of the inspector and the support he receives from the council and public.

The street tree committee of the Horticultural Society succeeded in convincing the city council that the object aimed at would have been better secured if the city assumed also the planting of the trees. Many feel that the matter

will not be on a proper basis until this is done, and we hope that some time in the future this service will be undertaken by the city as a public utility.

The source of supply of the trees planted by the citizens of Ottawa has been largely the local woodlands through the agency of street tree vendors. Incidentally it may be mentioned that the persuasive pressure of these men is responsible in a measure for the close planting that has prevailed since the city was established. A movement is now under way for the establishing of a civic nursery for shade and ornamental trees. It is expected that the nursery will be conducted by the Ottawa Improvement Commission to furnish planting stock for themselves and for the city at large.

Carnations at the Royal Winter Fair.

Elsewhere in Ontario, we have in the city of Toronto an example of advanced regulations with respect to street trees satisfactorily carried out. The following extract from the Statutes of Ontario, chapter 110, covers the provisions under which the Toronto city trees are looked after:

2. Notwithstanding the provisions of the Municipal Act, or any Act of this Legislature, the council of the said corporation may pass by-laws for authorizing the Park Commissioner, or any other officer appointed for that purpose, or a committee of the council to:—

(a) Plant, or cause to be planted, trees in the highways of the municipality;

(b) Trim, or cause to be trimmed, all trees on private property, the branches of which extend over the highway;

(c) Trim, transplant, cut down or remove, or cause to be trimmed, transplanted, cut down or removed, any trees planted or growing in any highway, square, lane, or other public communication, without notice to the owner or occupant of adjoining property and without payment of compensation therefor;

(d) Neither the said corporation, nor any person acting under the authority of the by-law for the purposes mentioned in the preceding clauses of this section, shall incur any liability by reason of anything done under authority of the by-law if reasonable care, skill and judgment are exercised in the doing of it.

(e) If the owner of any property objects to the removal of any tree on the highway adjacent to his property, he shall have the right to appeal to the Park Commissioner within forty-eight hours after such work is about to commence, and no such work shall proceed until the said Commissioner has heard such complaint.

As already pointed out, a minimum distance of thirty feet between trees has been fixed by the Ottawa Street Tree By-law. While this is an improvement over the old system of allowing property owners to be the judge, this distance is regarded by authorities as too little for street trees. After studying the policies of a number of cities who have adopted advanced systems, the street tree committee appointed by the Ottawa Horticultural Society recommended minimum distances of thirty feet for the maple and the ash, thirty-five feet for the oak, and forty-five feet for the elm. Following are the approximate minimum distances allowed in a number of cities from whom information was secured:

Toronto	30 to 45 feet	
Washington, D.C.	35 to 45 "	
Newark, N.J.	35 to 50 "	
Buffalo	35 to 45 "	for maples
Buffalo	45 to 90 "	for elms

A landscape authority of Montreal, Mr. E. B. Luke, regards thirty-five feet close enough for trees like the maples. On wider streets where the elm is more suitable, forty to fifty feet is looked upon as a better distance. This authority is reaching the conclusion that for the Canadian climate, where protection against the sun's rays over a long summer period is not a consideration, the ideal town in the future will have fewer large trees, and that boulevards and lawns will be more and more planted with shrubbery and flowers.

Another authority, Mr. Frank Waugh, professor of Landscape Gardening in the Massachusetts Agricultural College, regards forty feet as close enough for elms and maples, afterwards thinning them to eighty feet apart.

For the purposes of this paper, the planting of trees is not the immediate problem. The Horticultural Society that would undertake ornamental planting along the older streets of our towns and cities, must first get rid of the surplus trees. The legislation to which reference has been made gives authority to the tree warden, or whoever the officer may be, to remove such trees as in his judgment should be taken out. To get the work actually accomplished, however, is not so simple as it at first may appear. Most of the trees that were planted years ago along the street lines, were put in by the property owners. This naturally gives them a proprietory interest, which many are reluctant to give up. Mr. J. Horace MacFarland has given me an instance of the results of over-enthusiasm on the part of the executive of the street tree commission in a Pennsylvania town. The commissioner, in this instance, adopted a programme of drastic removal not based on common sense. The result was that his acts were reviewed in court and declared unreasonable, so that he was definitely defeated. Mr. MacFarland makes the observation that common sense must be the criterion for the handling of this whole matter, after the legal relationships are made right.

Two provincial Acts have reference to trees on public highways—The Tree Planting Act, chapter 213, and The Municipal Act, chapter 487. The Tree Planting Act is designed to encourage the planting of trees on the roadside. This measure goes so far as to provide for a bonus of so much per tree planted along the highway borders. The Municipal Act authorizes municipalities to pass by-laws allowing them to plant, protect, trim, and transplant, city or roadside trees and to remove trees or parts that have become a menace or stand in the way of public improvement. It provides further for the granting of public money for carrying on this work. Compensation, limited to the cost of planting and protecting, is provided for the loss of a removed tree.

These measures, it will be seen, perpetuate the principle of private ownership of the trees, even though growing on public property, and do nothing to regulate the spacing or varieties of plantings. Some additional authority is therefore needed before a town can proceed with a policy of street beautification, which combines fine lawns, beautiful shrubs, colourful flowers, and noble trees. It is, therefore, necessary to do as the cities of Ottawa and Toronto have done, secure special legislative authority enabling them to control the selection of the varieties of trees to be planted as well as the spacing, and, where necessary, to remove without compensation superfluous trees.

The election of officers resulted as on page four.

Mayor Hiltz, Toronto, in an address of welcome, spoke highly of the work of the association, and said he was one of its 50,000 members.

THE IRIS IN COLOUR

W. T. Macoun, Dominion Horticulturist, Ottawa

Long before the iris became as generally popular as it is to-day a collection of species and varieties had been established at the Central Experimental Farm, Ottawa. It was in 1895, or more than twenty-five years ago, that the first large additions were made to the then small nucleus of a collection. Such fine old, tall-bearded varieties as Mrs. H. Darwin, Jacquesiana, Gracchus, Innocenza, Florentina, Kharput and Purple King were planted in 1895 and before. Since that time many varieties have been added to the collection, the object being to test those which were known to be of high merit so far as quality of bloom was concerned, rather than to have a complete collection of all new sorts introduced. There are now 233 varieties of tall-bearded iris in the collection in the Horticultural Division at Ottawa, and 126 Japanese.

Believing that the best way to convey an idea of the wonderful beauty of colouring and form in the iris was to obtain an accurate reproduction of the

Iris.

best varieties in water colours in a form that could be shown to flower lovers, the writer, in 1922, arranged with Dr. Frank T. Shutt, one of the best amateur photographers in Ottawa, to photograph a large number of the best varieties, Miss I. Preston, specialist in ornamental horticulture, collecting the specimens. From these photographs lantern slides were made, and then in 1923, Miss Faith Fyles, artist of the Horticultural Division, with specimens of the living flowers beside her painted the slides; and the slides which are about to be shown are the result of her work. While the colouring was very accurately done, some of them will not look quite true to nature as shown on the screen, as it has been found that those having bluish tints especially are sometimes not reproduced well. As some of the newer varieties had not yet bloomed in 1922 they were not photographed until 1923 and are not yet coloured, but Miss M. E. Blacklock has been good enough to loan a few of her own to show what some of these are like. But while some of these newer sorts are larger in flower, taller, and quite distinct from the older varieties, there are many of the latter of great merit and it will, no doubt, be some years before they are all discarded, and they have the merit, at present, of being sold at a price that does not prevent the average person from establishing a collection of beautiful iris of high quality.

List of Best Iris Arranged in Colour Groups

1. White predominating on standards and falls: Florentina, Mrs. H. Darwin, White Knight, Bridesmaid, Innocenza.

2. White feathered or suffused with bluish-lavender and bluish-purple: Camelot, Ma-Mie, Madame Chereau, Mrs. G. Reuthe, Anna Farr.

3. White or white and purple standards and purple falls: Rhein Nixe, Victorine, Nemours.

4. Yellow predominating on standards and falls: Mrs. Sherwin Wright, Mrs. Neubronner, Flavescens, Shekinah.

5. Pale yellow standards and violet purple falls: Princess Victoria Louise, Loreley, Darius, Gracchus.

6. Yellow standards and brownish or maroon falls: Iris King, Maori King, Mithras, Honorabile.

7. Lavender blue and bluish-purple predominating on standards and falls. All pallida varieties: Celeste, Juniata, Tineae, Imogene, Dalmatica, Mlle. Schwartz, Albert Victor.

8. Bluish-purple standards and bluish-purple or deep purple falls: Amas (Macrantha), Chester Hunt, Blue-Jay, Alcazar, Magnifica.

9. Pale purple standards and purple falls: Perfection, Walneri, Salvatori.

10. Purple standards and purple or dark purple falls: Othello, Parc de Neuilly, Archeveque, Monsignor, Souvenir de Madame Gaudichau.

11. Lilac and rose predominating on standards and falls: Queen of May, Her Majesty, Isoline.

12. Violet and reddish-purple predominating on standards and falls: Lohengrin, Mandraliscae, Edouard Michel, Caprice, Asia.

13. Dusky or dull coppery standards and rich maroon falls: Jacquesiana, Ambassadeur, Prosper Laugier, Arnols, Nibelungen.

1. Of these the first three are the best. If two only were planted, Florentina and White Knight should be chosen. Kashmir White, which has not yet bloomed at Ottawa, is very good.

2. Camelot and Mrs. Reuthe are the two best of these. Ma-Mie is not quite vigorous enough and Madame Chereau, while a wonderful bloomer, is not as graceful as either.

3. Both Rhein Nixe and Victorine are fine.

4. Mrs. Sherwin Wright is the best in this group of the deeper coloured yellows, while Shekinah, a newer yellow, while rather light in colour, is very fine.

5. Princess Victoria Louise is the best of this group, but, because of its earliness, Gracchus is useful in a collection.

6. The variety Iris King is much the best variety of this group.

7. There are many very fine varieties in this group and it is hard to know where to stop in a list of the best. Anna Page is one of the newer ones that is much thought of, and Lord of June has won high place among the irises in this group. Mlle. Schwartz is also very fine.

8. These are all very effective. Perhaps the two that one could least do without are Amas and Alcazar. Crusader is one of the finest among the newer sorts.

9. Perfection is the best of this group and should be in every collection. B. Y. Morrison, of comparatively recent introduction, is much like it.

10. These are all of wonderful colour. I like Parc de Neuilly the best. It is very sweet-scented. But Souvenir de Madame Gaudichau, one of the newer sorts, outclasses them all.

11. These are all good, though Queen of May and Isoline are the two best.

12. Edouard Michel and Caprice are both very beautiful varieties, but do not seem quite so hardy as some others. The wonderful, comparatively new variety, Asia, comes nearest to this group than any other. It is a lovely iris and, while yet expensive, is bound to be generally popular.

13. Before the advent of Ambassadeur, Prosper Laugier was the best of this group, but the former is larger in flower and a finer variety.

Other excellent varieties among the newer sorts are: Sweet Lavender, Gold Crest, Afterglow, Rodney, Crusader.

KIWANIS, ROTARY AND OTHER CLUBS IN CO-OPERATION WITH HORTICULTURE

A. B. Scott, Galt

I will try to point out a few of the ways in which it appears to me that these societies or clubs could work in conjunction with horticultural societies to the advantage perhaps of both. These clubs may find that the roads leading into a certain town or city in which the club is situated are not in good condition, and they set on foot a movement which results in the improvement of these roads, and in so doing they help the whole community and those coming in as well.

Then comes in the cleaning up of city streets, the care of parks, installing drinking fountains, fitting up of playgrounds. A great deal of the work of the club has been devoted to this, because it is so closely associated with the care of under-privileged children.

The Kiwanians in the town of Pembroke, in addition to securing an expert swimmer to teach the boys and girls to swim, have given prizes for the best kept lawns and gardens in that town.

Mr. Spencer referred this morning to our trees in towns and cities. In Calgary, the Kiwanis Club sponsored a movement to plant 10,000 trees. In our

own city the club of which it is my privilege to be a member, two or three years ago undertook to care for a large flower bed in one of the parks, and that has been under their care for the past two or three years. It came under discussion a few days ago at a meeting of the executive committee, and it is just possible that they will leave the care of this bed to the Parks Commission and assume the care of a bed on one of our city streets.

It seems to me these societies or organizations could work in conjunction with one another. I presume most of the societies represented here are in need of funds and that we have to appeal to our municipal body for assistance along this line, and I think this is one practical way in which clubs of this type may be of assistance. While I do not wish to disparage the personnel of our horticultural societies, because I think they represent the best in our city, still in union there is strength, and every element that we can bring to bear upon the object which we have, or which we are endeavouring to obtain will strengthen our position, and so if we secure the endorsation of the Kiwanis, Rotary or Lions Clubs and Chambers of Commerce in appealing to our municipal governing bodies in the different sections for financial assistance we will be much more likely to get what we ask.

Another means of assistance is by way of raising funds. I would not suggest that you get these men to assist you in your annual canvass for members. Most of them are engaged in business, and their time is pretty well taken up, and to ask them to assist in the canvassing for membership would be asking a little too much. But when we wish to raise special funds for a special purpose, then I think we would be justified in appealing to them. Last year we secured the privilege from the Canadian Council of Horticulture of establishing a Pæony trial plot in Galt. We expect to ask the Kiwanis Club to assist us in some way in making a special appeal to certain business men in the city to contribute subscriptions to assist us in financing this work—this in addition to the grant which we expect from the council and our annual memberships.

Then the moral support which comes from organizations of this kind is helpful, and it seems that the more we can co-operate with one another the more easily can our objects be attained. It might be possible for a club of this kind in your town or city to take over one of your city beds, or they might be willing to take an objectionable part of your city and have it cleaned up. There are cases on record where Kiwanis Clubs have gone out fifty or one hundred strong and done just such jobs as that.

Then possibly in connection with the annual flower shows, they might be able to give some assistance in the collecting of exhibits, calling on those who for lack of time or for some other reason do not find it convenient to bring their exhibits down to the place where your exhibitions are being held.

Then we had in the paper which Mr. Spencer gave us this morning in regard to the trees on our streets, a suggestion as to the necessity of some particular legislation in order that this matter could be handled more efficiently and successfully. Here you have another opportunity to appeal successfully to such organizations and clubs. And so we might appeal to these people for assistance to secure the necessary legislation to carry out whatever improvements or changes we wish to secure in the conditions which prevail, because when you have your appeal backed up, and while we have a membership of 50,000 in our horticultural societies in the province, still you cannot go too strong-handed when you are going to those who are in the positions of authority in our country, and the stronger you make your appeal the more clearly it will be heard. When we wish to secure amendments to our legislation of any kind, let us appeal to these people, so that our call will come with no uncertain sound.

THE STAGING AND JUDGING OF FLOWERS AT EXHIBITIONS

Prof. R. R. Graham, B.A., B.S.A., Guelph

With the ever increasing interest in floriculture, public exhibitions of flowers are rapidly gaining in popularity. This is particularly true with the amateurs in flower growing. Wherever you find a horticultural society or a garden club, you will invariably find one or more exhibitions during the year. Usually the competitors are large in numbers and a very keen yet kindly rivalry exists. It is at such shows that the judges have a very hard task in deciding who the winners are in this or that class. Whether the contestants win or not, they all decide before leaving the show that they will come back next year with more and still grander specimens of flowers. Surely this condition bespeaks a very healthy and prosperous development of amateur floriculture in this country.

The staging of a flower exhibit and carrying out all the details in a highly successful manner is a task of no mean order, and no show committee can make a great success of it without having a clear and well defined conception of the real aims of an exhibition. Furthermore, no exhibitor can reap any great benefit himself, or help the show very much if he fails to appreciate the real purpose of the exhibition. A few well defined objects constitute the ideal, and I desire to emphasize these at this point. Mr. Wm. J. Stewart, in Standard Cyclopedia of Horticulture, says:

> Floral exhibitions undoubtedly had their origin, in part, in the desire to display publicly the products of one's skill, and to attain renown and a position of pre-eminence among one's fellows by successful rivalry and the demonstration of superior cultural abilities. But in addition to this factor of self-interest and excusable pride, the laudable spirit that seeks to promote a taste for ornamental gardening and floriculture in general, and to acquire knowledge and diffuse information concerning it, has from the first been a powerful incentive; and it cannot be questioned that public floral exhibitions have contributed most substantially to the advancement of refinement and good taste and exercised a potent and salutary influence on the domestic life, health, morals and happiness of the respective communities in which they have been held.

In the foregoing paragraph the writer has set forth in forceful language a very noble and high ideal for a flower show, and there is in it a great deal of inspiration for everyone taking any part whatesoever either as an exhibitor or as a member on the management. The true exhibitor enjoys not only the great satisfaction of showing outstanding specimens of flowers or maybe new varieties and winning attractive prizes with them, but greater still he realizes that he is imparting useful information, creating in others a greater love for the beautiful and even elevating the ideals and character of the people of the community. Also if the show committee performs its tasks under the spell of such a high motive, and the force of such an inspiration, it would certainly find the greatest pleasure in the performance of its duties. The pertinent question we should ask ourselves is: "Are we living up to this ideal to the greatest possible degree? If not, where are we falling down?"

To my mind exhibitors should give more study to the matter of what constitutes first class specimens in the particular flowers they may be growing for exhibition. Such information should be more available than it is at present. Information, too, should be disseminated more freely regarding the problems of cutting, storing and staging flowers for exhibitions. Probably very few know that the preservation of flowers may be greatly lengthened by the addition of a little common salt, saltpetre or an aspirin tablet to the water. Probably the most effective way, and the most opportune time to put this valuable information across, would be during the progress of the exhibitions by lectures and demonstrations among the flowers. The judges, or others well qualified, could

be engaged to carry on this educational work, and if it were well done it would attract great attention by the exhibitors and also the visitors to the show.

In the next place, what interest has the show for the public? Too few people attend our shows, and many who do attend do not carry away very much except a general idea that the flowers were beautiful, and the fact that so and so won a lot of prizes. Vitally they have not been touched or benefited in any particular manner. It may be their own fault. I think, however, that the managers as a rule do not cater sufficiently to the needs of the general public, the women in particular. They are interested in not only the beauty of the

Burn Brae, home of W. H. Paterson, Scarboro.

form and colour of the flowers, but also in the various uses to which flowers may be put in decoration of the home, the sick room, the concert hall and the church altars. The local florist or any one experienced in the art of floral displays could stage a very interesting and useful series of demonstrations and talks on these and kindred subjects. In this connection it is interesting to know that the Garden Club of America in its New York shows has experienced that the non-cultural competitions drew not only by far the largest number of contestants, but also attracted the greatest and continuous attention of the visitors.

Staging the Show

The first step in staging a flower show is to secure a suitable room or hall. Its chief requisites are roominess, plenty of light, coolness and good ventilation. It will be a great advantage if a small room or two nearby are available with a water supply where the exhibitors can unpack their flowers as soon as they arrive and at once get them into cold water. These rooms should be cool and preferable with cement floors. Basement rooms are very suitable. A plentiful supply of large pails, tubs or sap buckets should be on hand in these rooms for holding the flowers until they are dressed up in the proper receptacles for the show tables.

The receptacles for exhibiting the flowers will vary in size and shape with the character of the exhibit and the type of flower. For exhibiting a large mass

of any particular flower, for example, a large bunch of gladioli, a sap bucket is very good, for medium sized bunches, say six or a dozen gladioli, a tin receptacle ten inches high and four inches at the bottom and five inches at the top is satisfactory. It will greatly enhance the appearance of all metal receptacles if they are painted a nice green colour. This sample I have before me is typical of the medium sized receptacles. At Guelph we use a considerable number of these and they are very suitable for any number of gladioli from four to a dozen. They are useful for holding other flowers too, such as, peonies, asters, phlox, or any flower with pretty long and strong stems. These receptacles were made in Guelph, and cost our society twenty cents each.

Next are the tables for holding the exhibits. Usually these have to be made up on the spot with trestles and lumber. Two years ago our society at Guelph invested in one hundred or more wooden collapsible trestles which cost seventy-five cents each. They have given good satisfaction. They are convenient to store, easy to set up and take down. We rent the necessary lumber to form the tops. The trestles are about thirty inches high and three feet wide. We have found the height of these tables about right for showing off most flowers to good advantage. Too often tables at flower shows are too high. Tables of various widths and lengths may be made of the equipment just described. Setting up and arranging the tables properly is quite a big task, especially for large shows, and judging from my experience with a few shows and observation of others I think the show superintendent should prepare a sketch of the arrangement of the tables beforehand for the guidance of the men putting up the tables. Too frequently the planning is done on the spot without much consideration for general appearance, convenience and proper allocation of space for the various exhibits. There should be plenty of space between the rows of tables for at least two rows of people to pass easily and the arrangement should provide easy access to all sides of every exhibit or row of tables, except those next the walls. The arrangement of tables should be characterized by simplicity, symmetry, convenience and good taste. The tops of the tables should be covered with paper, green, white and brown being the best colours. When white paper is used it is worth while to partially cover it with asparagus foliage. We at Guelph get a roll of newsprint paper from the local printer and spread it evenly over the table tops, reserving enough to turn down a few inches at the front edge. If the tables are real ones with painted, stained or polished tops, it will be necessary to get an oiled paper such as the sample I have here before me. The various sections and classes should be designated by suitable cards, perfectly mounted on mounted supports similar to the sample before you.

Somewhere near the entrance to the show there should be a booth for the secretary and other officials of the show where information of all kinds pertaining to the show could be obtained by exhibitors and visitors. The committee should see to it that there is always some capable official in charge of this booth.

As to the matter of decoration of the showroom, I am of the opinion that it does not receive the attention it deserves. Probably it may be due to lack of funds, shortage of suitable material and scarcity of willing hands to do the work. Is it not true that flowers never look so well as they do in their natural setting in the garden, especially when they have a suitable background of green shrubbery, hedge or trees and green carpet for a foreground. It is not possible to duplicate these natural conditions in the showroom, but a good deal can be done to give the exhibits a somewhat natural setting. Did you ever notice now unnatural long tables of flowers look in front of a red brick wall for instance. Some green paper or bunting put against such a wall would make a vast improvement in the

show of flowers. If red, white and blue bunting can be secured, it will pay to use it for decorating the walls and ceiling of the room. Evergreen trees or boughs are also very suitable for back grounds against walls, pillars, and massing at each side of the entrance or screening unsightly portions of the room. Much valuable assistance in decoration could be secured undoubtedly from the local florists, and I think the show committee would be well advised to get their co-operation and put them on its committee. We have found our local florists quite willing to assist by staging special exhibits of their own, not for competition, but to add to the size of the show and help in the decoration.

Some of the most glaring defects we notice at flower shows are these: One is the practice of crowding the receptacles too close on the tables with the result that many of the individual exhibits cannot be seen to good advantage. Some judges object very much to this practice, and naturally discount the exhibits considerably. Another fault is jamming too many specimens into a vase or receptacle so that the form and beauty of the flowers are largely lost. Again very little attention is given to colour schemes and suitable massing of flowers. If this principle is not kept in mind, one is apt to get some very ugly combinations which detract very seriously from the beauty of the whole show. Still another weakness is too little help when the flowers are being staged. The exhibitors appreciate very much having several persons ready at hand to help them out in getting their flowers unpacked, put into receptacles and placed on the proper tables, getting cards for the exhibits, etc. It is a good idea to have special committees detailed for work of this kind. It will accelerate the work as well as pleasing the exhibitors. There is no better advertisement for the show than a lot of satisfied exhibitors.

Judging the Flowers

After the show committee and the exhibitors have completed their work the judges begin their task of deciding the merits of the exhibits and making the awards. No entries should be allowed after judging commences. Judges should be chosen long before the time of the show, and never on the day of the show if it can possibly be avoided. Only qualified judges should be engaged, and they should work in pairs. The more experienced one should be appointed chairman, and he should be empowered to settle all disputes. During the judging no one except the judges and their assistants should be permitted in the room. If this rule be strictly enforced, the judging can be done with much greater dispatch and without interference and annoyances from exhibitors and other curious individuals. Judges as a rule do not use score cards, and personally I do not believe in them except in special cases. If a judge knows the features of a good flower, it will not take him long to pick out the three best specimens in a large collection unless the competition is very keen. The usual procedure is to eliminate all the poor specimens first, and usually this greatly reduces the number. Again the poorer ones are eliminated and so step by step the good are separated from bad, and finally the awards are made. It is a good plan to take the best ones away from the exhibit and place them apart for closer observation and careful study, especially when the competition is very close. Judges do not always agree, and hence the necessity of having someone act in the capacity of super-judge or referee.

What do the judges look for in a flower? It depends somewhat on the kind of flower being judged, but still there is much in common in the judging of all flowers. In the case of the gladiolus, for instance, they will look for condition,

purity of colour or harmony of colour substance, texture, length of spike, number of flowers open at one time, arrangement of flowers on the spike, density of spike, straightness, height and strength of stem, and shape and openness of flowers. They will also give some consideration to the manner of staging the flowers, and in some cases good staging goes a long way with the judges. This feature, of course, will figure more largely in the judging of the decorative classes where beauty of arrangement, naturalness, simplicity, sense of proportion and colour schemes are strong features.

After the judges have decided upon the winners of first, second and third prizes, they open the closed envelopes in front of these exhibits and get the names of the winners. The cards are left exposed and the ribbons are placed beside them. The assistant makes the proper entry in the secretary's book. Just as soon as the judging is finished and the awards are placed, the exhibition should be opened to the public.

In concluding I wish to emphasize again the great necessity of maintaining a high standard of excellence in our shows, and catering to the public as much as possible. If we can give the people something useful as well as attractive we can hold their interest much better. There are many ways of doing this, and show committees should seek to find out how the big flower shows of the world are conducted. Good progress in shows is being made in the country by the various flower and horticultural societies, and if we can keep our standards and ideals high enough some day we may be able to boast of shows equal to those in England and the United States of America.

CANADIAN GARDENS

Mrs. Dunnington Grubb, Toronto

The question is often raised: "Is it possible to have a Canadian style of garden?" My answer is "Yes, just as soon as we develop a distinctly Canadian type of architecture, but not before," because the garden is a setting for the house. It is subservient to it and dominated by it, therefore, it has to harmonize with that particular kind of architecture.

Now, throughout the Dominion the best examples of architecture are those which have drawn their inspiration from well recognized traditional types—we have the Classic, the Gothic, the Tudor, Elizabethan, Georgian and the Colonial. The Colonial is something approaching near a national style. In the first place it is a modification of the Georgian, and in the second place it originated in the United States. The only true local style is the "Log Cabin," "Backwoodsie," and that does not suggest any style made by man.

Now there are two styles of gardening: First, formal; and second, informal or landscape. At one time there was a great deal of controversy between the two schools of design; one side could see no good in the other. We are now coming to believe that the most perfect garden we can have will combine the good points of both, that that portion of the grounds which immediately surround the house, the house itself being the work of man and formal or artificial, should conform to the lines of the house and be formal in its treatment.

But as one gets farther away from the buildings, and when the building dominates to a lesser extent, then we can allow ourselves greater latitude and adopt a free and less formal form of design, and one which will harmonize and blend in with the surrounding landscape. The slides I have chosen for this

afternoon will I hope show you in some small degree where that has been attempted and perhaps accomplished.

A plan of a garden on paper may look very formal and stiff, but there are different ways of planting it. the planting may be so arranged as to soften and mellow the design, whereas in a less formal design, if the flower beds are very stiff and Early Victorian, you will get a very artificial effect, even if the general plan of the garden may be informal. Mrs. Dunnington Grubb illustrated her lecture with a number of slides showing the different styles of planting gardens.

You will, continued Mrs. Grubb, see by the pictures that I showed that you can have the two types in the one garden. I will refer to the boundary plantings on large estates. Often we see it done at the start, in the wrong way—the most expensive in the end. People realize when they buy a large piece of property that they wish to have protection from the wind or the dust of the road, or they want to get more privacy, and by putting a boundary planting they get the desired results, and they take a few large trees or shrubs and dig a few holes and set them in and expect to have in a few years a good screen. What generally happens is that the poor things are starved and strangled and grow smaller instead of larger. The only successful way to have a fine boundary built plantation is to put the stuff in very small, keep it close together for three years, and then thin it out. In the end it is very much cheaper, and you save a good deal of time, because at the end of three years those trees will have gained such vigour that they will shoot right ahead and get ahead of the big trees and shrubs you put in. We are so impatient and in such a hurry nowadays, and in the end we lose time.

One view showed a boundary, and the shrubs were not mixed—a block of Scotch pine and then a block of Norway spruce, then another of Austrian pine. The Scotch pine was one of the best for large plantations but was not in extensive use in this country. She warned against mixing conifers and deciduous shrubs, as mixed they would never thrive.

Horticultural Exhibit, C. N. E.

DAHLIA CULTURE

George M. Cosh, Mimico Beach

The modern dahlia is probably the most popular flower grown, and it well deserves this popularity. There is no flower that can compare with it in diversity of colours, size, beauty and variety of form, long season of bloom and ease of culture. The past year, 1923, might be termed a good dahlia year, the season was cool and lots of rain. My dahlias started to bloom the 20th of July, and continued to bloom until October 22nd, when they were cut down by frost. When we consider other flowers such as roses, paeonies, iris, and even gladioli there is no comparision. A view of some of the dahlia gardens during September was a gorgeous sight. The rapid introduction of new and improved varieties in recent years is a revelation to amateur and professional gardener alike. As to introducing new varieties of Canadian origin, we are far behind. We are entirely dependent on Europe and the United States for new varieties. In the United States the dahlia has been fostered by the American Dahlia Society in the east, and the Dahlia Society of California in the west. Much good work has been done by these societies in bringing the dahlia to the perfection that we see it to-day. I believe the time is now ripe for the formation of an Ontario Dahlia Association which would help both the commercial growers as well as the amateur. There has been a dahlia test plot extablished in Mimico under the supervision of the Canadian Council of Horticulture. The trial ground could also be used for trying out different methods of culture as well as the testing out of new varieties sent in for registration. Dahlias grow well in Mimico. Last year the Mimico Horticultural Society distributed 3,000 dahlias in thirty varieties to its members. The results obtained were very satisfactory when I state that fifty per cent. of the members had never grown dahlias before. I have been growing dahlias in Mimico for the past eight years, and good years and bad years I have been successful in growing good blooms. I will try in as few words as possible to tell you how I grow dahlias.

Preparation of the Soil.—I prepare the ground in the fall. Dig the soil ten or twelve inches deep and apply a liberal amount of well rotted manure. I also dig in quantities of coal ashes which loosens up the heavy soil and holds the moisture in dry weather. I have seen good dahlias grown on almost all coal ashes. In the spring, I again fork over the ground just before planting, and in this way the manure and ashes gets well mixed in with the soil.

Propagation.—Dahlias are propagated in three ways; first by division of the clumps, second by cuttings, third by seed.

Division of Clumps.—In separating, a sharp knife should be used, and care taken to remove each tuber individually. Select the tuber you think can be most easily removed, cutting so that each tuber has a piece of the crown or eye, the crown being the bulging portion where the tuber is connected to the clump. By examining carefully you can see small eyes or sprouts at the base of the old stalk. The eyes produce the new plants, so it is absolutely necessary that each tuber have one or more eyes.

Cuttings.—Start the clumps into growth about the beginning of March, as soon as the young sprouts have three pair of leaves, cut just below the second pair and place in a two-inch pot using a compost of half loam and sand. When the cuttings have filled the pot with roots, repot into four inch pots. Keep in a cool light place until there is no danger of frost and plant outside. After

planting place an inverted pot over each plant for a couple of days to keep from wilting. Water thoroughly.

Seeds.—Growing dahlias from seed is like buying a lottery ticket; you never know what you are going to get. Buy only the best seed, or save the seed from your choicest varieties. Sow the seed about the beginning of March, either in a greenhouse or hot bed. If the seed is good it will germinate in three weeks, prick off into flats, planting the seedlings two inches each way. When the plants are large enough pot into four inch pots and treat the same as cuttings.

Planting Tubers.—Before planting, I measure off the ground three feet each way and put in the stakes. I dig a hole at the base of each stake six inches deep and twelve inches in diameter. I put sand in each hole sufficient to cover the tuber, this prevents the tuber from rotting. I plant the tuber flat with the eye upward, I then take a handful of sheep manure and sprinkle on top, keeping the manure away from where the sprout will come up. Level off the soil and tie the label to the stake. I never water until the plants are through the ground as water bakes the surface and makes it hard for the young plant to come through. As soon as the plants are big enough tie them to the stakes, as they are very easily broken by wind.

Care of Plants.—Allow only one stem to grow to each plant. If more than one sprout comes up leave the strongest and cut the others off. When the plants have three sets of leaves pinch out the top, allowing four lateral shoots to grow. This will give you four flowering stems instead of one. If you wish only exhibition blooms you can disbud every side shoot the whole length of the stalk. If you wish more flowers of medium size allow more laterals to grow. Keep the ground well cultivated until the flower buds are formed. Careful watering is essential. Don't depend on rain, and during dry weather soak the plants thoroughly two or three times a week. During the growing period, I give the plants a dressing of blood and bone every two weeks, and this is well worked into the soil. Care must be taken to keep the fertilizer away from the plants. After the flower buds are formed, I mulch with half rotted manure, this keeps the ground cool and moist.

Preparation of Blooms for Show.—Water the plants thoroughly the day before the flowers are to be cut. This fills the stalk with water. Cut the blooms in the evening after the sun has gone down, or early in the morning. Immediately after the blooms are cut I dip the stems for a few seconds in boiling water, then place in vases of cold water and keep in a cool place.

Harvesting the Bulbs.—After the foliage has been killed with frost, I cut the stalks off about three inches above the ground. Dig the clumps with a digging fork. Care should be taken to avoid breaking the neck of the tubers. If the neck is broken or cracked, cut it off as it will only dry up, or rot during the winter. After the clumps are dug shake off any loose soil and put in the sun to dry. Pack them in boxes or barrels with the clumps upside down, you will notice that the stalk of a dahlia has a hollow and contains water, and if this flows back into the crown will cause decay. If the cellar is cool you will not need to cover the bulbs. If the cellar is warm I recommend covering the tubers with dry sand to keep them from shrivelling up during the winter.

THE BUSINESS SIDE OF A HORTICULTURAL SOCIETY

M. A. Collett, Mimico

We started a horticultural society in Mimico three years ago last summer. We put on a membership campaign and obtained about 360 some odd members. The next year we managed to get about 700 members, and last year 960, so that each year we have managed to advance a little. There is not any organization that can carry on without members, therefore, I will take up the membership end of it first, and explain to you as nearly as I can, how we proceeded to obtain our members. We figured out that we ought to get in the town in which we live, about 700 or 800 members, so we offered about $100, to be divided in three prizes to the canvassers procuring the largest, the second largest, and the third largest number of members for our organization. The one getting the largest number of members received $50, the second $30, and the third $20. We then gave ten per cent. to anybody obtaining more than twenty-five members.

Now another advantage in getting a large membership is that you have more money to carry on with, you have a greater community spirit and the result is that you have much more interest taken by many of the people in your municipality who otherwise would not take any interest in your organization.

Mimico Horticultural Exhibit.

If we had only striven to get those already interested in horticulture into it we would not have been able to do nearly so much in our town as we have by getting a large organization.

Another thing, in a large organization, you get a larger grant from the government. It cost us in procuring the members last year $111.75, about twelve per cent. of the total amount of membership.

Our next procedure is to distribute bulbs or plants of some kind to our members. Our reason for doing that is that in making distribution ourselves,

we get our members to specialize on one particular thing each year. The result is that we have better shows, and we have more friendly rivalry amongst our individual members with the result that we get a much better selection of stuff at our exhibitions. We generally purchase all our own bulbs. We import them from Holland, with the result that the cost is much less than it would be to get options from the various seed men.

We figure that in a town of 3,500 any Society should get about 700 or 800 members. As I said before, we figure on making our own distributions. The first year we gave away about 5,000 tulip bulbs with the result that the next spring we had a fine tulip exhibit. You would have been surprised had you been out there and seen the number of entries we had at our tulip show in the summer.

When we make these distributions, we have a speaker come out and instruct the different members how to plant and cultivate and raise whatever we distribute in order that they may get better results.

We generally hold meetings every two or three months, and have a good speaker out there to give our different members talks on different town topics. Now last year we distributed and paid in prize money $123.50, and it cost us $102.22 to carry our shows.

As a summary I will give you a report of our receipts and expenditures for the year. On our third year of operation our cash receipts were $1,431.15. Our expenses were: Postage, $47.45; printing, $163.52; secretary, $100; petty expenses, $17.50; prize money, $123.50, besides bulbs and other plants that we distributed.

We expended in purchases to be distributed among our members, $618.77; expenses of shows were $102.22; commissions to our canvassers for getting members, $111.75.

Last year we started a trial ground, as Mr. Cosh showed you, which will cost us $141.95. At the end of the year we closed our books with a balance of $4.50, and at the end of three years' operation we had on hand about $500 worth of bulbs and vases. That is practically a summary of the business side of our organization.

ADDRESS

Hon. J. S. Martin, Minister of Agriculture, Toronto.

I am delighted to meet the Horticultural Association of Ontario. It is especially pleasing to me to be able to meet with a body of people who are doing the work that you are doing, and doing it voluntarily, and I have no doubt that yours is possibly the most outstanding organization of this kind on the continent. I am particularly pleased to see so many ladies here to-night, for this is work that appeals to the women of our country. I have been very closely identified with the horticultural work of this province in a local way. I have not been at one of the provincial meetings before, but I have been a member of our local association in Port Dover for considerably over twenty years, so I know at first hand what the work is like, what you have been doing, what you are trying to do in the future, and for that reason I feel very closely in sympathy with this association. I might go a step farther. Some few months ago a reporter came to my office and asked for a few facts about farming, etc., and he suddenly said: "What is your hobby?" Well that was rather a difficult one. I did not know at first what my hobby was. I have always said my work was my hobby, because it

was my hobby in my boyhood days, and when I grew up I made it my business. That did not seem to satisfy him, and he said, "Outside of that?" And I said: "I have only one hobby outside of that; I am a gardener, and I have been a gardener all my life." I got that from my grandfather. He used to say: "I am not so much concerned with things after they are grown, but I like to see them growing." That is true of every daughter and son of the soil—we like to see things growing. It is wonderful to see things grow from one stage to another, and see them come to maturity, and I have always felt sorry for people who did not like gardening, flowers and everything allied to it.

So I feel on very close terms with the people who are gathered here to-night, and I want to say a word or two about the work you have been doing. I understand that the latest estimate of the number of members is 50,000. That is wonderful. And there has not been any coercion in the matter; it has been a voluntary, natural growth; and no institution will ever amount to anything unless its growth is of that kind. I have no doubt but what you will continue to grow steadily. This desire for farming is the first instinct of primitive man, and it has descended to us from our ancestors—the love of the soil, the love of seeing things growing, and it is the one outlet for the people who are unfortunate enough to have to live in cities and towns. It is a fortunate thing that there is an opportunity to carry on the culture of the soil, even if it is in a small way.

But now the thing is broadening out. When we come to the wonders of plant life, when you see the gladiolus and the dahlias, and the chrysanthemums, the wonderful improvement which has been brought about by plant breeding, I do not know of anything in this world that will give a man or woman, who likes that kind of thing, more genuine pleasure. It is the art of creation, you are creating something. You are, you might say, taking to yourself a power of the Almighty, because you are bringing into being things that have not existed before. You are yourself creators. And to me that has been one of the most wonderful things of the age in which we live. I grow a lot of flowers myself, I have nearly an acre of them, and I see some of the wonderful creations. When I get before some of those wonderful exhibits such as our friend, Dr. Bennett puts on, and Mr. Kent, the dahlia man, I am simply amazed. The wonderful creations that have been propagated in the last few years—magnificent specimens of dahlias, flowers that ten years ago not one of you would have believed possible. And the gladioli! What a world the gladiolus is by itself! When we think of the progress that has been made in the past ten years, and when we look to the ten years ahead of us, there is not a man or woman in this hall to-night that can grasp the possibilities. When we think of the wonderful work that has been done in the perfection of vegetables, that are made adaptable to certain climates and locations, it is a study by itself. When we think of what we are doing, we will say with the tomato, when we look back twenty years and compare the tomato of twenty years ago with the tomato of to-day; when we think of the seedy sour things we used to have, and the perfect specimens we have to-day, we feel that we are constantly improving.

It is important that you should have these associations over all this province. At first the associations started in the urban centres, in the cities and towns, and later in the villages, and they have been a wonderful help. The wonderful work of civic improvement and ornamentation in St. Thomas, Ottawa, and other cities and towns is worthy of commendation. The beautifying of the places in which we live is most important work. I find that wherever there is a flourishing horticultural society you will find it reflected in the appearance of the homes and in the appearance of the places themselves. If you go into a

town where no care is taken of the homes or the streets, and everything is run down in appearance, you can make up your mind there is no horticultural society in that town, because one affects the other. And there is nothing that I know of that is more beneficial and for which encouragement is more justified than work of that kind. That is what you are doing, with the assistance of the government.

Getting away from the question of utility, there is no doubt that there is an effect upon the community other than just what you see. It has an effect upon the people themselves. I believe that in a place where the citizens think it worth while to grow flowers, not only on their own places, but along the streets, and have parks, you have a higher class of population, a better living people than you do where those things are not encouraged. And that is why I think this association should be encouraged.

You have already done a good deal, but there is much more to be done. I said a moment ago that the societies have been confined largely to the towns, villages and cities. The next step has already been taken, to have organizations in the townships. For some reason or other, people living on farms in the past have not found it as necessary or they have not seemed to find it as necessary to take an interest in gardens and flowers as the people in the cities. I suppose there are thousands of farms in the province of Ontario where they have not a garden, where they do not even grow a bit of lettuce, where they buy everything of that kind that they eat. I know in my own neighbourhood of places where they did not have a foot of garden. The only thing they grew outside of field crops was a few potatoes.

I remember an old Scotsman, a neighbouring farmer. One day he was out in the field, he pulled out a little package and opened it up, and he said: "What do you know about that? My wife gave me that lettuce seed to plant about two months ago and I forgot all about it." So that is all the garden that they had, and that unfortunately is not an individual case. I can see a decided change in the last few years in respect to that. The farmers in this province are going into gardening on a larger scale. And they are going farther; they are beginning to improve the appearance of their homes to a very great degree, and the thought has often occurred to me in driving through the country and seeing so many farms where nothing is done to beautify them, that possibly had quite an influence on the boys leaving the farms. Here you will see a barn sitting off in one place, one hundred yards or so away from a house with not a single flower, not a shrub, in many cases not a tree. What in the world is there to keep boys in love with their homes? But there are other places, where are hedges, trees, shrubs, flowers and gardens and everything to make home attractive and beautiful, and there the boy and girl must realize that there is something to live for, and home does mean something. And I am glad this organization has undertaken this work as they have, because I feel when you have undertaken anything, that you will go through with it. You have succeeded in the past, you will succeed in the future, and if you have made up your mind that there is going to be a local society in every township, that is tantamount to this being done.

I understand you have made a start, and that you have a local society in every township in Oxford. So long as I am in office you can always depend not only upon a sympathetic consideration, but something more tangible than that.

Hon. Mr. McCrea: While I come from a section of the Province of Ontario that has not made strides in horticulture such as the older parts of the province

have made, we do, in the north, feel the appeal which flowers have. Up in the north country there are certain of the older settled cities, such as Sault Ste. Marie and Port Arthur, and I am glad that Mr. Bailey of the northern part of the province is an interested worker of his society. These places where development has occurred along lines of horticulture, are bits of beauty and have that attractive appeal which you set forth to make. Some of the flowers which we have there you have not any more in the older sections of Ontario; some of our flowers are like the rare birds that are only to be found in certain places. We can still boast in that country, of the wonderful trailing arbutus, that pushes its ways through the snow in the spring time, and other fragrant and beautiful flowers.

These are some of the things in the north which, while we have not made the strides that you have, have attraction for the northern people, and you will find that they will respond to the appeal of horticulture just as readily as

Civic Centre, Iroquois Falls.

the people in older Ontario, and I hope your work will spread and grow. Englehart produces some very fine crysanthemums; and the more western districts grow some very fine sweet peas which take second place to none of old Ontario. If you will help us, we can possible show you that for quality of soil and adaptability of the people, we can combine to make of greater Ontario the place you and I hope to see it.

Do not forget that in the northern section of the Province of Ontario we are ninety-five per cent. pioneer. We have still to pass through the period which the forefathers and pioneers of those here to-night passed through in the sections of older Ontario. Our men in the newer sections are called upon to perform cruder labours so far as the necessities are concerned than do the older sections; but we are endeavouring there to see if we cannot develop that north section of Ontario not only for the benefit of those who are there, but for the benefit of those in the older sections of the province. He then spoke of the wonderful development of mineral and industrial enterprises in the north country.

The prime minister asked me to bring his good wishes and his felicitations to you, and to say that he was pleased with the work that is being carried on,

and that under and through his Minister of Agriculture you will have in him a friend.

Mr. W. B. Roadhouse, Deputy Minister of Agriculture: I congratulate you upon this splendid gathering. It seems to me that it is one of the finest conventions which has been held under the auspices of your organization, and I have attended many of them. I am glad to see old friends here and to realize that their enthusiasm is unabated, and I am also glad to see new friends, and thereby gather that the enthusiasm is becoming contagious, and spreading far beyond the original bounds and borders. It seems to me that this convention is always especially welcome, not only because of the work which it is doing and the great principles which it stands for, but because of the time at which you meet. In conclusion it is indeed a good augur to see so many ladies here to-night, because their interest and their work is undoubtedly one of the big factors in the success of the horticultural movement. There are many men who keep their horticulture in their wife's name, and perhaps allow their wives to take the full share of the responsibilities and activities as well as the joys of horticulture. And so it seems to me a happy fact that we have the ladies with us to-night, and we can all join together not only in the enjoyment of this happy social evening but in looking forward to the coming of another springtime with its joys and its opportunities.

Mrs. Jean Blewett also spoke briefly.

HORTICULTURAL ORGANIZATION

J. E. Carter, Guelph

For some time we have been doing special work throughout the province in connection with township societies, and have delegates here who are present through the fact of such missionary work. In the townships very little work had been done to beautify the homes and to help the boys and girls who live there. To-day we have in almost every town or city organizations doing work relieving the municipal authorities of what is really their duty. They believe that the work can be done more effectively by our volunteer societies and in many cases that the general improvement and suggested improvements of the various towns and cities are now becoming part of the work of the horticultural society. Toronto has neighbouring townships, and the urban societies go out and assist these men in their publicity work and shows. The same thing applies to other places. We must not feel self-contented because our particular municipality has been properly organized and is doing good work. Reach out to the weaker societies, assist them, send them a letter of encouragement and tell them that you have men adapted to certain kinds of work, who will be pleased, without any expense on their part, to give them an evening's talk on certain subjects they are interested in. If we do that, we are really working in the interest of horticulture, and while we have to-day a large membership, I feel quite satisfied that within the next five years we will have over 100,000 members. There is no work going ahead at a greater rate throughout the province and one which is more beneficial to the people. If our gardens and premises are kept right, it gives pleasure to every man who passes, consequently the work of the societies is very far-reaching.

In regard to educational work: We have done too little in connection with our local newspapers. Local newspaper editors in the province say that they

are willing and anxious to print good articles on any subject pertaining to horticulture that you are willing to provide. In our own city we can use an entire page of a paper, if we wish it, and the publisher is very pleased to put it in for the reason that he knows that there are 1,600 members, together with their friends in the city, who are interested in that page. We have found that through that page we have advanced the interests of horticulture and the art of growing flowers better than through any other medium through which we could reach the people.

Regarding the Canadian Council of Horticulture at Ottawa. The Canadian Council was formed in 1921 for the purpose of linking up to a central body all the horticultural interests of the Dominion, because, while through the Minister of Agriculture, his deputy, and Mr. Lockie Wilson we can get support and assistance and co-operation for the province, we have to realize that these gentlemen have absolutely nothing to do with federal laws, which to a large extent govern the importation, inspection for disease and pests, and the proper regulation of trade and commerce. It is all done through the federal department at Ottawa, consequently it was necessary to get a federal organization which would have the backing of that department. That was taken up in 1921, and I am pleased to say that the Hon. Mr. Motherwell, Minister of Agriculture, was very sympathetic. There were many meetings held and its first year's operation produced very excellent results, while those in 1923 were far beyond our expectation.

In March each member of the local society will receive from that body what is called a "Horticultural Review," which will possibly be the finest work ever gotten out by any organization outside of the Royal Horticultural Society of England. That will give you a lot of information.

Up to the present time we have had no standards of judging. The Canadian Council hopes to have in the hands of each organization throughout Canada, proper cards by means of which a man using ordinary judgment will be able to be fairly expert in the matter of judging, and when he is through he can place that card before an expert and justify his award of any prize which he might give.

The council will be pleased at any time, if you think certain restrictions put on in the way of embargoes, duties or anything along that line are unreasonable, to take up your case and see that the organization gets proper treatment from the government.

J. Lockie Wilson: When I came into the department some sixteen years ago the horticultural members of this province were numbered by hundreds, but with your wonderful, untiring work, you have gone forward with leaps and bounds, making ours the greatest organization of the kind in the world. There is in no other country such as splendid organization as ours.

You are to be congratulated on the excellent work you are doing. We are honoured to-night by having two ministers of the Crown, whose inspiring addresses and encouragement are greatly appreciated. We require their co-operation, and I am sure it will be heartily and generously given. After all, money expended by the government of this province is spent upon work which you are doing without hope of financial reward, and for the common good. I ask you, members of city and town organizations, to lend a hand and encourage the farmer boys and girls and the farmer and his wife to organize rural horticultural societies. The farmer may say: "I have no time for this kind of work; it is all right for citizens who have nothing else to do but to take an interest in flowers." It does not take much time to plant a shrub or a tree or flowers round

a farm home. Will you lend a hand to your surrounding farming community, will you not go to those meetings of theirs, you with your greater advantages and greater opportunities, and lend a hand to the farmers of this country? I am looking forward to the time when as the great tourist traffic passes over the highways being built here, they will see not dilapidated farmsteads and buildings, but vineclad homes such as our motherland boasts of.

It is up to you to make this country blossom and flourish by giving your support down through the years to those who need it. I have tried in my humble way to do my part to further the interests you have at heart, but individually we are minor factors in the work that is being accomplished. This is an epoch marker in the history of this great Association. Never before have we had so many delegates nor such a splendid banquet as to-night.

Mr. Potter, Canadian Gardeners' association: We are doing a work similar to yours; we as professionals, you as amateurs. It is to offer that experience of the gardener and the florist that I am here. We are attempting in some small way to reach the high ideals that the ministers and others placed before you to-night. By co-operation between one and all a better Ontario will be brought about.

C. A. Hesson:· First of all, will you permit me to express my appreciation of the willingness and readiness of the local societies to meet this special assessment which was placed upon you by the last convention. It is true, that in the minds of some of us there may have been an idea that that assessment would not be met any too readily, but I am glad to say we were disappointed in that respect. It is true there are some delinquents, but these will be overcome in due time. Mr. Hesson then presented the financial report which appears on page six.

The Chairman: One of the weak spots in the organization is the question of finance; the other is the question of closer contact between the association and the individual societies. Some thought would have to be given to these subjects.

REPORT OF REPRESENTATIVE TO THE CANADIAN HORTICULTURAL COUNCIL

J. E. Carter, Guelph

The following is a review of some of the phases of the work undertaken during the past year and under contemplation for the year 1924.

Plant Registration.—The organization of the Plant Registration Bureau of the council has been perfected and, during the year, twenty new varieties of horticultural plants have been accepted for recording from growers in all parts of the dominion, including, five gladioli, one rose, one strawberry, three chrysanthemums, one black raspberry, one red raspberry, one gooseberry, two apples, one black currant, one peach, one cherry and one lilium.

Under this bureau, demonstration and trial gardens are being established. Many applications have been received for the establishment of a demonstration garden, the object of which is to make a comparison between varieties of horticultural plants and different stock of the same variety, in order that all who visit the garden may see the relative merits of plants grown there from different sources. The best variety for the district is here seen by a large number of persons, and it is thus an excellent means of bringing about a rapid improve-

ment in the quality of the varieties grown by flower lovers in Canada. Trial gardens will be established for the purpose of testing new varieties of horticultural plants accepted by the council for recording, which will be established only at government institutions, such as experimental farms and agricultural colleges, in order that the plants sent to the council for testing by originators may be afforded every possible means of protection.

The Carter Medal.—The Carter medal, donated to the council by Mr. J. E. Carter, of Guelph, vice-president of the Ontario Horticultural Association, has been found to amply fulfil the purpose for which it was intended. It is awarded annually to the person who, in the opinion of the council, has done most for the advancement of horticulture in Canada during the past calendar year.

Award of Merit Certificate.—An Award of Merit Certificate has been established by the council as an award to new varieties of outstanding merit, exhibited at a recognized horticultural exhibition.

Diploma.—A diploma has also been established as an award to the person making the best display of horticultural products at a recognized horticultural show.

C. H. C. Activities During 1923.—The council has been successful in securing the use of the press for a large number of articles concerning horticultural subjects and has now under preparation a "Canadian Horticultural Review" which is intended to be the "Blue Book" of horticulture in Canada. The Review, which will be in the nature of a handbook, in addition to being the annual report of the council, will be forwarded to at least 40,000 of the members of the associations having membership in the council.

Information Bureau.—The office of the council has become a clearing house for all matters affecting the interests of the horticulturists in Canada, particularly concerning public documents, available publications, activities of the departments, legislative matters and general information.

The council has also provided a medium through which the horticulturists and the Dominion Government may be brought closer together. War and post-war activities have been such as to emphasize the many opportunities of the people of the country to benefit from a more intimate contact with their government. The difficulty heretofore has been in the absence of any machinery by which the public could know of and benefit from these activities.

Adjusting Legislative Matters.—A large number of items in the Acts and Regulations of the Dominion Government, which had proved to be to the detriment of the horticultural and allied industries, were, upon representation by the council, satisfactorily adjusted.

Extension of Markets.—The necessity of the extension of markets for Canadian horticultural products has been continuously before the council, and no possible effort has been spared in this direction. Due largely to the representations of the council, green fruits were included in the preference proposals made at the recent Imperial Conference. Every effort is being made to secure the removal of embargoes maintained by the governments of Australia and Japan against Canadian apples.

Dehydration.—The recommendation of the council that experiments be made in the dehydration of fruits and vegetables was accepted and carried out, with apparently most successful results, by the Dominion Department of Agriculture.

On the further recommendation of this council, steps were taken by officials of the Dominion Department of Agriculture to carry out an investigation con-

Garden with Oriental Poppies two years after planting.

cerning the cause of the breakdown in British Columbia apples which has caused such very severe losses to the fruit growers of that province.

In addition to the improvement of the present activities and services of the council, the following matters are at the present time receiving consideration:

The inauguration of a National Decoration or Memorial Day, in co-operation with the War Veterans of Canada.

A registration scheme for qualified gardeners and gardeners' employers.

A general advertising scheme for horticultural products, such as fruits, vegetables, flowers and nursery stock.

Certification of nursery stock following leaf identification.

The formation of special sections of the council for those persons particularly interested in the iris, the paeony, the rose, and the gladiolus.

The securing of legislation providing for the sale of economic poisons under a guarantee analysis.

The establishment of standardized score cards for the use of judges of horticultural products.

The conducting of a National Apple Day and a National Apple Week.

The annual meeting of the council will be held in Ottawa on Wednesday, March 5th, when it is expected that a large number of matters of very vital interest to those in the horticultural and allied industries in Canada will be discussed.

Every endeavour is being made to have the copies of the Canadian Horticultural Review in the hands of the members by March 1st, and it is necessary, therefore, that advertising copy be received at the office of the council not later than February 9th.

The chrysanthemum, J. R. Booth, which has been accepted by the Horticultural Council for recording, was originated by the horticultural division of the Central Experimental Farm, Ottawa, in 1919. It is an exhibition variety, with flowers nine inches across and seven inches deep, double reflexed and lemon yellow in colour.

It was sent by the originator to a large firm in the United States, who make a specialty of featuring chrysanthemum novelties. During its exhibition at the

New York Flower Show, the Japanese ambassador to the United States considered it the best chrysanthemum at the show and asked to have it named "Princess Nagako." The firm consented to this without consulting the Dominion horticulturist at the Experimental Farm, Ottawa, the originator of the chrysanthemum, and listed it in their catalogue under the name of "Princess Nagako." Immediately the catalogue came to the attention of the Dominion horticulturist, he noticed that the feature novelty named "Princess Nagako" was the same description as that previously submitted to the company under the name of "J. R. Booth." The Dominion horticulturist at once communicated with the company concerned, who informed him of the above noted occurrence and requested permission, in view of the circumstances, to change the name from "J. R. Booth" to that of "Princess Nagako." In view of the fact, however, that this chrysanthemum was named after a very noted citizen of Ottawa, the Dominion horticulturist would not consider the renaming, and it should, therefore, be distributed under its proper name, "J. R. Booth."

Mr. Carter moved the adoption of the report, seconded by Mr. Moore. After some discussion the report was adopted.

CULTIVATION AND USES OF PERENNIALS

Henry J. Moore, Toronto

The least expensive form of gardening is that of growing hardy herbaceous perennial plants in borders. Very few lovers of gardens, indeed, if any, are there who do not love these plants, and who have not at some time or other grown them or made an attempt to do so. The home surroundings may be greatly improved by a judiciously placed perennial border, and if the subjects which are planted therein have been wisely chosen, a succession of bloom may be enjoyed from early April until November in southern Ontario.

The Position

The best position for the border in question is along a structure of some kind, as a fence or wall, or beside a planting of shrubs or trees, or both, which act as a background. If these structures or trees serve as a boundary to the lawn so much the better, for this is the proper place for the border. A southern or southwestern aspect is the best. A position of full sunshine is necessary. If planted on the north side of a high structure which prevents the access of sunlight herbaceous perennials generally will fail.

The herbaceous border should not be made in the centre of a small lawn, although it may flank a walk at the side of a lawn, thus serving as a boundary in this position. To place the border centrally in a lawn will not result in its beauty being enhanced in its setting; rather the beauty of the lawn, the setting, will be impaired, as when cut up and divided by beds or borders it loses its dignity. Rather let the border or borders flank the lawn, framing it in by the perennials which will act as a lovely frame or setting to an already lovely picture, thus neither lawn nor the perennial border will in any way detract one jot from each other. This is true landscape practice. All your schemes of beautification should have a boundary.

The soil should be well drained. The plants will not do well in a low lying position where water will stand for any length of time. Where this danger

menaces, it is well to make the border on a higher point of ground. A low lying position may, however, be satisfactory for a bed or border of semi-aquatic irises, and with such may be beautified.

The Soil

Any good deep fertile loam will be satisfactory for the perennial border. If the soil is too heavy it may be improved by the addition of rotted stable manure and sand, or if too light, as a light sandy soil often is, it may be improved by adding a few barrow loads of finely broken clay loam, and stable manure. There is thus no real reason why any soil which is not acid cannot be made satisfactory for perennials, provided that it is at least one foot in depth.

It is best to dig and to prepare the border for the subjects during November; failing this it should be done during March, or as early as possible in spring. When preparing the border always dig in a few barrow loads of stable manure at the rate of one load to one hundred square feet. It is not well to manure too heavily any border area until the plants have become established and are capable of utilizing the food materials which result from the decomposition of the manure. Rather is it better to apply manure each subsequent fall and to dig it into the border by means of the fork.

Planning the Border

When contemplating planting the perennial border, it will pay the person interested to make a sketch plan or diagram showing the length and breadth of the border and the names and positions of the subjects to be planted therein. It is really worth while to make a study of the subject before actually starting the work—so much depends upon this. It is just as easy to lay out the border properly as to make a failure of the work. Let us now see how the border should be planned.

Arrange the tallest subjects along the back of the border near the fence or other structure, or plantation of shrubs as the case may be. If the line of the background is straight the lines of the border should also be, if sinuous so should be the lines of the border. The first line should not be closer than eighteen inches from the structure. The plants should be arranged in clumps of three or four; the individual plants in each clump should be twenty-four inches apart, and the distance between the clumps should be twenty-four inches. Line No. 2 should be composed of plants of an intermediate height. This line should be twenty-four inches from Line No 1, the rear line. The plants should be arranged as advised for No. 1, but the clumps should be planted opposite the vacancies between the clumps of No. 1 line. Line No. 3 should be composed of plants of a fairly dwarf habit. They should be planted as advised for No. 1, and No. 2 lines, the clumps being opposite vacancies in No. 2 line, and thus in line with the clumps in No. 1 line. Thus arranged no large vacancies or gaps will be apparent in the border when the plants start into growth. Line No. 4, the "edge" line should be fifteen inches from Line No. 3, and nine inches from the grass or other border. The plants of Line No. 4, which are known as the edging plants, should all be of a dwarf nature, and if these are arranged in clumps a more beautiful and more natural appearing border will result.

The forementioned instructions are for a border which may be of any length and seven feet wide. A wider border than this will rarely be found on an amateur's grounds. Should, however, the reader desire to make a border ten feet or more in width, this may be done by adding one or more lines. Care

should be taken to see that the plants chosen to constitute these do not hide the plants of the row immediately behind.

The reader may ask is it necessary to adhere strictly to straight lines. No, decidedly not. The most beautiful and pleasing border is that in which the lines have the appearance of being "broken"; that is, no apparent line of demarcation between them at the distance of a few feet. It is, however, a difficult matter for a novice to plant such a border without a plan, and the speaker would ask his hearers to remember that the lines given are but for their guidance, to govern them when planting the subjects so that according to tallness and dwarfness, the plants will be placed relatively in their proper positions. He or she who can successfully make the lines merge into each other without overcrowding the subjects, so as to give the appearance of naturalness rather than that of artificiality, will have the most pleasing border.

Choice of the Subjects

When choosing the subjects for the perennial border, the following factors should be considered: 1—Hardiness. 2—Time of flowering. 3—Duration of the flowering period. 4.—Colour. 5—Adaptability for cutting for decorative purposes. So chosen, the plants should form a very satisfactory border, one in which there would be plants in flower from April until November.

A good border may be planted by simply using the following subjects: Anchusa (alkanet) varieties, dropmore and opal, colours, gential blue and opal, height five feet, season of flowering, July-August. Campanulas (the bellflowers) latifolia varieties, violet purple, five feet, July. Delphiniums (the larkspurs) many varieties, chiefly blue, five feet and less, June-August. Delphinium moerheimi, white, four feet, July. Aconitum fischeri (the aconite), clear blue, three and a half feet, September. Aquilegia (the columbines) various, two feet, May-June. Michaelmas daisies, purple, two-three feet, autumn. Heuchera mosquetaire, brilliant scarlet, one and a half feet, June-August. Iris, variety canary yellow, two feet, May. Iris pumila, blue, nine inches, April-May. Hepatica, single red and double red, six-nine inches, April. Arabis (rock cress) albida, single and double, white, nine inches to one foot, April-May. Phlox subulata varieties, mauve and other shades, six inches, May-July. Dianthus (pinks) Mrs. Sinkins, white, nine inches, June-July. Helleborus niger, Christmas rose, snow white, one foot, November-December. Campanula carpathica, blue, one foot, June-August. C. Carpathica alba, white, one foot, June-August.

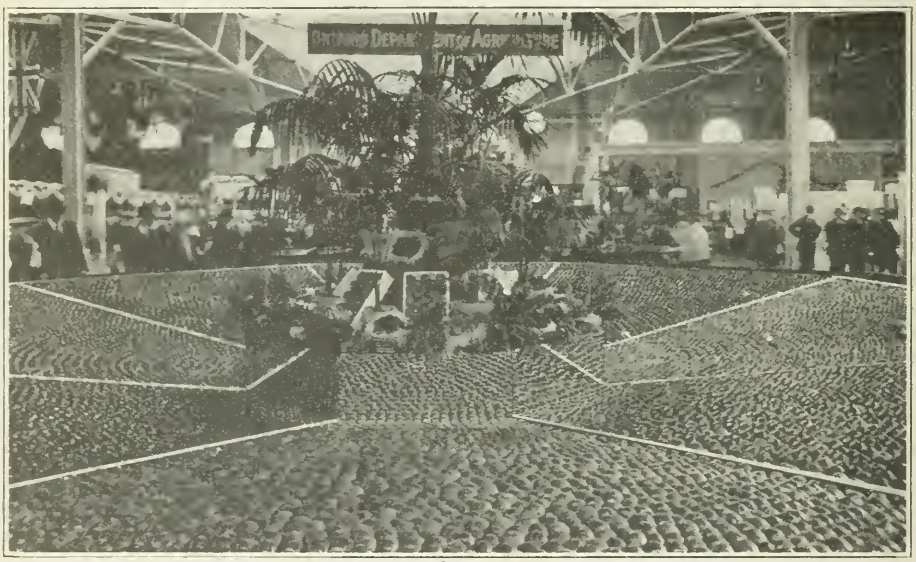
In the above list the colours, heights, and times of flowering of the subjects are given, as will be observed, this as a guide to the planter. In addition to the subjects mentioned, there are hundreds equally as good to choose from. These include arenaria, the sand wort, armeria, the sea pink or thrift, asclepias, the butterfly weed, aubretia, also called rock cress, cerastium, snow in summer, coreopsis, digitalis, the fox glove, gentiana, the gentian, helenium, helianthemum, the sun rose, helianthus, the sun flower, iberis, perennial candytuft, lathyrus, the perennial pea, linaria, the toad flax, lupinus, the lupines, lychnis, papaver, the oriental poppy, myosotis, the forget-me-not, oenothera, the evening primrose, phlox, potentilla, and rudbeckia, the cone flower.

Planting.—The planting of the subjects in the perennial border does not differ materially from the planting of other subjects. They should be planted firmly and to such a depth that their crowns are about two inches below the surface. There are exceptions to this rule, one of them being the iris, which

should be so planted that its crowns are not more than two inches below the surface. To bury irises deeper than this may result in the death of the subjects. When planting special subjects such as lilies, it is necessary to deviate somewhat from ordinary planting methods. Lilies will not flourish in the border unless the soil is of an open nature and the drainage is absolutely free.

Make the holes to receive the lily bulbs with a trowel. Make them so large that the bulbs will when placed in position rest right on the bottom, and not be suspended therein. Prior to planting the bulbs, place a large handful of sand in the bottom of each hole and set each bulb directly on this. So planted free drainage will be assured and the bulbs will not be so likely to decay.

There are two seasons at which the perennial border may be planted, spring and fall. April is the best spring month, and October the best in the fall. A week or so earlier or later will, however, make little difference, if the



A Good Fruit Exhibit, R. A. W. F.

weather will permit of the work. If you plant this spring do not wait until the perennials have started into growth, if it is possible to do the work when they are in a dormant condition.

Cultivation

It is a mistaken idea that when planted, little remains to be done to make a success of the perennial border. Occasional hoeings and rakings are necessary during the summer and fall months to keep down the weeds and to conserve the moisture in the soil for the use of the plants. During the very driest weather an occasional watering will greatly benefit the plants, although if cultivation has been assiduously effected, this may not be necessary.

With the advent of winter, all the decayed stems of the perennials should be cut close to the ground and be removed. The border should be then manured with rotted stable manure and the manure be lightly forked therein, or an existing border may be manured in early spring and the manure be likewise forked in. After frost permanently encrusts the ground, a mulch of three or

four inches of strawy litter should be placed over the border to protect the plants during winter. It is not well to place the mulch in position assuming that the winter has arrived. It is better to wait until heavy frosts actually occur, even if such should not occur until January.

When spring arrives, the mulch should be removed from the border, or if considerable decay has taken place it may be forked directly into the soil as manure, especially will this practice be valuable on borders which were not manured during the fall. Great care must, however, be taken not to remove the mulch too early, otherwise many of the tender growths may be injured by frosts. Equally great care must be taken that it is not left on the border too late, or it will hold the frost therein, and while certain stems may appear through it, the roots will not function, to the detriment of the plants. The best practice is to remove about one-half of the mulch at the first operation, and in a few days the remainder. There will thus be little danger of frosts harming the plants.

Propagation

The principal method of propagation of herbaceous plants is by seeds which may be sown during the month of April, May and June inclusive. Some species and varieties are propagated by means of cuttings. Division of the root stock is another way in which the numbers of plants may be increased. The window, greenhouse or garden frame are good places in which to start the seeds, or during June they may be sown directly outside in well prepared soil, and should be shaded from the sun.

The seedlings when about two inches high should be pricked off into flats or in lines in a garden frame. If the grower is prepared to exert every care, they may be pricked off directly outdoors but they must be carefully watered and shaded from the sun during the bright hours of the day. The cheesecloth or other shading material should be removed late in the afternoon and be replaced in the morning while the seedlings are well rooted. Care should also be taken to protect the plants from heavy rains. This may be done by supporting boards on bricks which are laid at the ends of the area containing the seedlings whenever storms threaten.

During August and September the seedlings, now fine young plants, should be transplanted about nine inches apart in rows eighteen inches apart if in more than one row and they should be watered to settle the soil around the roots, and if carefully cultivated until late autumn will grow very quickly.

When winter arrives the plants should be protected by placing a covering of strawy litter over them about three inches in thickness, not, however, until the frosts are sufficiently heavy to form a crust on the soil. The mulch should be removed as soon as heavy frosts are past in early spring.

Cultivation and the removal of weeds the second year will do much to promote the growth of splendid plants, and the following spring they may be removed and be planted in their permanent positions in the border or be sold if grown for commercial purposes.

Propagation may also be effected by division of the root stocks of the plants during spring or autumn. The roots should be severed by means of a sharp spade, the divisions being either planted like the seedlings in the border or in nursery line until required for use or for sale.

RESOLUTION COMMITTEE'S REPORT

No. 1. Moved by R. M. MOTHERWELL, seconded by J. M. PEAREN: Whereas the Canadian Council of Horticulture is an established and functioning body; and whereas all other horticultural interests are now represented thereon, and whereas definite progress in horticultural matters can only be secured by the co-operation of all parties concerned and whereas the Ontario Horticultural Association is vitally interested in the unification and development of Canadian horticulture, therefore be it resolved that this association continue its membership in the Canadian Horticultural Council and that funds necessary for the purpose be raised by a levy of one cent per member.

No. 2. Moved by J. B. SPENCER, seconded by T. D. DOCKRAY: Whereas it is desirable to secure the adoption of a uniform urban street policy for the province of Ontario embodying the principle of municipal control of the planting, transplanting, protection and removal of street trees; and whereas special legislation to this end has been found necessary in the case of certain municiplities, therefore be it resolved that the directors of this association be instructed to prepare and submit to the Government of Ontario such an amendment to the Municipal Act as will make it applicable to any urban municipality as now granted to Toronto and Ottawa by this special legislation.

No. 3. Moved by REV. G. W. TEBBS, seconded by BENJ. JOHNSON: That we should encourage the publication of horticultural information and news to a greater extent than at present, and that the directors take some action to bring this about.

No. 4. Moved by H. J. MOORE, seconded by PROF. CROW: Whereas we, the delegates to the Ontario Horticultural Association in convention assembled, realize the importance of fundamental research in the field of horticulture; and whereas we feel that the establishment of a National Institute for Horticultural Research would be in the interests of the economic as well as the aesthetic side of Canadian horticultural activities; and whereas such an institute would function in the interests of all Canada, be it resolved that we endorse and accord our support, moral and otherwise, to this most worthy project.

No. 5. Moved and seconded: That this Society views with alarm the destruction of hundreds of thousands of our beautiful evergreens for Christmas trees and the large number sent to the United States. That we request the Ontario Horticultural Association to take such action as they think necessary to protect our beautiful trees.

No. 6. Moved by J. M. PEAREN, seconded by WM. HARTRY: Whereas in the opinion of this convention the juvenile work of our horticultural societies is of great importance to the development of horticulture and good citizenship, be it therefore resolved that a director be appointed to have a special interest in this work; and that the Rev. W. M. McKay be appointed as such director.

No. 7. From W. J. THOMAS, Midland Society: That each society appoint a committee to get in touch with their local representative at the Ontario Legislative Assembly with a view of obtaining an increased grant from that body for the carrying on of horticultural activities.

No. 8. Moved by H. G. MURRAY, seconded by W. T. THOMPSON: That the annual meeting date be changed from 9th to 15th of January to read on or before the 15th of January.

No. 9. Whereas the Ontario Horticultural Association now has over 170 societies and over 50,000 members; and whereas, while these societies in the past have been confined largely to the urban districts, the rural sections now

have begun to organize and this field being so large that with proper management the membership could easily be greatly increased; and whereas this side of the work is most interesting and important and if we would succeed in making rural life what it should be we must help them to make their living conditions as delightful as possible and this can only be effected if they have proper supervision, it is moved by Frederick A. Kent, Toronto Horticultural Society, seconded by R. Whorley, Haileybury: That a business manager be appointed who would be a thoroughly trained horticulturist, his duties to be as follows:

1. To strengthen the membership of each individual society.
2. To help the secretary of each society make out the year's programme.
3. To give each society at least three outside speakers during the year.
4. To help each society prepare its annual prize list, to aid them in getting their premiums as cheaply as possible by getting the orders all together and buying in quantity. He should seek to further the idea of the use of native materials such as trees, plants, etc., wherever possible.
5. To put new life into the working officers of each society so that they will be as efficient as possible.
6. He should be able to give advice on planning small parks, recreation grounds, community centres, etc., and should visit this work for further advice whenever necessary. He should use discretion in this matter. He should advise on street planting in cities as to location, variety, etc., and give other information as deemed necessary.
7. He should prepare slides and movies on horticultural subjects which would be available at all times for the societies' use. He should be prepared, when possible, to give lectures himself.
8. He should be able to interest clubs or chambers of commerce in the horticultural side of their town's advancement.
9. He should link up with the society the various other horticultural societies such as the Rose, Iris, Paeony and Gladiolus.
10. He should, on occasion, bring in the best speakers obtainable from other provinces or countries. These he could use in the districts where they be most appreciated.

Whereas it is possible that this can be done at the present time without the necessity of asking the government for special funds through the co-ordination of existing departments that could be used for this purpose. The time to get this matter settled is now (at once) and the quickest way to do it is for the formation of a special committee to report this to your directors with authority for them to act.

No. 10. Moved by Wm. Voy, seconded by Mr. Klostermann: That the legislation committee ask for increasing the fees to two dollars per annum.

No. 11. Moved by Mrs. A. Flood, Smith's Falls, seconded by Dr. A. T. Morrow, Maxville: That this Association recommends that each horticultural society makes a point of seeing that the grounds of each school in its locality are properly beautified from a horticultural standpoint.

The Committee's Recommendation

We, your Resolution Committee, recommend as follows:

That resolution Nos. 1, 2, 3, 4 and 5 be approved.

Resolution 6, no action, as Rev. Mr. McKay is now on the board.

That resolution Nos. 7, 8, 9, 10 be referred to legislation committee.

Resolution No. 11 is entirely a local matter of which this convention has no control, but local societies can well include same in their programme of work.

All of which is respectfully submitted,

(Signed) J. E. CARTER, Chairman.

Mr. Carter moved the adoption of the committee's report, seconded by MR. T. H. FULLER, Windsor.

MR. WOODS moved in amendment to No. 1, that the amount be two cents a member, and the membership to the Canadian Horticultural Council be paid and the balance be used toward general expenses of this organization, the amount to be collected when the regular affiliation fees to this association are collected. Seconded by MRS. CARLETON.

Moved by MR. CARTER: That the Resolution Committee's report be received as adopted with the exception of No. 1, which is amended by the resolution just preceding. Carried.

Moved by JOHN MARR, seconded by LIONEL GODSON: Be it resolved, that the delegates of the Ontario Horticultural Association in convention assembled hereby express their sincere appreciation to the Hon. John S. Martin, Minister of Agriculture, and Hon. Chas. McCrea, Minister of Mines, for the interest taken in our work by honouring us with their presence at our banquet and for delivering such interesting addresses, and that a copy of this resolution be forwarded to each of them. Carried.

Moved by WM. HARTRY, seconded by LIONEL GODSON: That the delegates to the 18th annual convention of the Ontario Horticultural Association regret the absence of their president, Mr. J. P. Jaffray, who is at present in Scotland on important business for the Ontario Government. They desire to congratulate him upon his recent appointment to such an important position and extend to him their best wishes for his success in the work he has undertaken. Copy of this resolution to be forwarded to Mr. Jaffray. Carried.

Moved by LIONEL GODSON, seconded by JOHN F. MARR: That the delegates present at the 18th annual convention of the Ontario Horticultural Association desire to express their deep regret at the untimely passing of Mr. J. A. Middleton, Lindsay, late director of District No. 2 and who acted as chairman of the reception committee so ably for a number of years.

The members of the convention stood while motion was being passed.

Moved and seconded and carried: That District No. 3 be divided into two districts to be known as Districts 9 and 10, viz.:

9. Muskoka, Manitoulin, Nipissing, Parry Sound, Sudbury and Temiskaming. Director, C. A. Byam, New Liskeard.

10. Kenora, Rainy River, Algoma, Thunder Bay. Director, W. P. Bailey, Fort William

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REPORT OF THE LEGISLATIVE COMMITTEE

Your Legislative Committee have taken up the many resolutions that were passed at the 1923 convention of our association, and find two which call for a report by this committee, viz., the matter of finances and the redistribution of the counties in the province for directorate representation. The matter of obtaining an increased grant was the first thing that engaged the attention of your committee and they waited upon the then Minister of

Agriculture for the province, Hon. Manning W. Doherty. While they were courteously received, your committee got absolutely no encouragement that any additional grant would be voted. The Minister explained that as the Dominion Government grants to the provinces for agricultural purposes had been discontinued, it would be impossible to make any additional grants to this or kindred associations. The committee kept this matter foremost in their minds and when the Hon. John S. Martin took office, the matter was laid before him and he gave the committee a very sympathetic hearing. The committee emphasized the importance of additional money for the work of the societies, pointing out that the grants now made to the horticultural societies had not kept pace with the tremendous increase in the membership and further stressed the fact that the value of the grants now made had been materially lessened by the increased cost of labour and materials. In our discussion with the Minister, the question of the incorporation of the Ontario Horticultural Association came up and your committee suggested that the Minister might see fit to permit this association to become incorporated under the Act respecting Agricultural Associations along with kindred associations, such as the Fruit Growers' Association of Ontario, the Gardeners and Florists Association, the Ontario Vegetable Growers' Association, etc.

Owing to the encouragement received along this line, your committee came to the conclusion that they would recommend to this convention that the Ontario Horticultural Association ask for incorporation under the Act respecting agricultural associations.

If incorporation is secured, the government would be in a position to deal directly with this association and the way would be open for them to make a money grant to the association for administrative purposes.

It is conceded that there is a great lack of funds in the treasury to carry out the necessary work of this association, and in the event of becoming

Roadway, Soper Park, Galt.

incorporated and a grant made, the association would have funds that would permit of greater activity, etc., etc.

Re the resolution regarding the redistribution of districts: Your committee have given this matter very mature consideration and viewing it from all angles beg to recommend that the province be divided as follows:

		Counties
District	1	Glengarry, Prescott, Russell, Stormont, Dundas, Grenville, Carleton.
"	2	Leeds, Lanark, Frontenac, Renfrew, Lennox and Addington.
"	3	Hastings, Prince Edward, Northumberland, Peterboro, Durham, Victoria and Haliburton.
"	4	Ontario, York, Peel, Halton.
"	5	Dufferin, Grey, Bruce, Huron, Wellington.
"	6	Perth, Waterloo.
"	7	Welland, Lincoln, Haldimand, Brant, Wentworth.
"	8	Middlesex, Oxford, Elgin, Norfolk.
"	9	Lambton, Kent, Essex.
"	10	Simcoe, Muskoka, Parry Sound, Nipissing.
"	11	Town of Sudbury and all west thereof.

It may be that mistakes have been made in laying out these districts, but the committee have not had the advantage of local representation in the redistribution. It is submitted to the convention for its very best consideration. It will be observed that two additional districts have been created. This will tend, it is believed, to increase the efficiency and activities of the functions of the organization.

The report was adopted.

CUT FLOWER ARRANGEMENTS FOR THE HOME

S. A. McFadden, Toronto

There are two aims in the arranging of flowers in the home.

(1) Decorative effect.

(2) Artistic effect.

Decorative effect is the arranging of flowers in mass, to secure some outstanding effect of colour or design. It is only on special occasions that decorative effect is required in the home. True a certain amount of art should enter into the arrangement, but it is not the essential thing where decorative effect is desired.

I believe you are more interested in the artistic effect of flowers in the home and so will confine my remarks to-day along this line.

No one can become a floral artist by being told how to arrange flowers. All will agree that floral arrangement is an art and as such requires much study and practice before it can be applied with best results. One must learn by observation, practice and experience. There are no set rules for the gathering of a few flowers into an artistic arrangement. The most successful can not always tell you why he did this or that.

The enjoyment of beauty, whether in flowers, pictures or any form, comes through feeling. One who attempts to arrange flowers must have a sym-

pathetic feeling for the flowers he handles, and must learn to love their tenderness and qualities as those of living beings.

Flowers are living things. They respond to careful, sympathetic handling and never give their best if they are thrust into water carelessly.

You have your favourite flower and love that flower more than others. Why? Because you have a feeling for that flower.

I have remarked that those most successful in arranging flowers cannot always give you reasons for their arrangements. Still there are a few points to observe to become successful.

(1) Nature.
(2) Simplicity.
(3) Harmony of colour.
(4) Balance and proportion.

Nature

Nature is a wonderful teacher. The more we follow "Mother Nature," the more successful we will be. Flowers have a characteristic, natural beauty. Follow these characteristics and we will get more pleasing effects. Nature grows flowers so that the individual beauty of flower and leaf is seen. Often we gather flowers from our garden and select the open blooms. These usually have short stems. Cut the flower with the stems longer and with it some of its foliage and a bud or two, the effect, when arranged, will be more artistic. The whole plant is inseparable from the beauty of the flower.

All kinds of flowering shrubs are susceptible to skillful arrangement. When the branches are put in water they should be given as nearly as possible the posture of natural growth.

You will notice that invariably all small flowers grow in clusters and close to the leaf. Large flowers grow singly, or in twos and away from the foliage.

Simplicity

All flowers for decoration come out best in simply furnished rooms. They want space and background if they are to be in some measure satisfactory.

Simplicity in flower arrangement is an essential feature. Most floral arrangements are too complex. The Japanese practice the simple arrangements. The rare and unusual flower does not interest them most, nor does quantity appeal to them. It is just a few simple flowers. The placing of each stem or branch, or each perfect flower has a meaning. They insist on the preservation of the essential form of each stem or branch, and in the combination of two or three flowers to make a beautiful picture. Rarely is more than one variety used in the same vase, and the vases are simple so as not to detract attention from the flowers.

Harmony in Colour

Colour harmony is an important factor in the successful arrangement of flowers. It is worthy of a long chapter, and to go into the subject thoroughly would take more time than I have at my disposal to-day. However, a few remarks on the underlying principles will guide us in our efforts.

There are pure colours and broken colours. Pure colours are those from which all other colours may be derived. They are known as the primary colours and are, red, yellow and blue. Broken colours are any one of the pure colours dulled, or reduced in purity. Flower colours are broken or mixed colours. Pure colours are rare in flowers.

Between the pure, or primary colours, are the secondary colours—orange, green and violet. Colour in its strictest sense applies to these six fundamental colours.

The dark colours are known as cold colours. They reflect less light and are good for backgrounds. For example one or two daffodils with a bunch of violets, is better than a few violets with a quantity of daffodils. A bright colour is known as a warm colour.

A colour is said to be complementary to another colour when it is its greatest contrast. For example, yellow and violet; orange and blue. When used in flower arrangement they should be used in unequal quantities and with the bright or warm colours in lesser numbers. Most floral decorations are done with flowers of contrasting colours. One must remember in using flowers that they have definite shape and colour and so cannot be blended like pigments.

Hue is the term applied to colours that have a primary or secondary colour in common, and used side by side are said to be harmonious by analogy. The gradations between yellow and orange may be used together as they have yellow in common. Tint is any pure or broken colour weakened by high lights or illumination. Shade is any pure or broken colour darkened.

Having all these; colours, tints, and shades, in the floral kingdom one has the material for a harmonious colour arrangement. Colour harmony may be secured by: (1) Contrast; (2) Analogy; (3) Tints and shades. But it is not an easy matter to do this successfully. There are no "hard and fast" rules. One must make a study of it, and try different colour combinations until a pleasing effect is obtained.

In arranging colour combinations, one must take into consideration how a colour behaves, or changes, under artificial light. Blue and purple should be avoided for evening decorations. Pale blue loses in its intensity under artificial light and dark blue becomes almost black. Yellow also loses in intensity. Pink, especially the deeper shades, also rose and red colourings are attractive for evening colour schemes.

Balance and Proportion

In all floral decorations the mind should conceive an idea, and then the hand, with the aid of the eye, should work out that idea. The worker should always have in mind that he is composing a picture, and it will be a success only if it is balanced and proportioned correctly.

Often the balance and proportion is lost by selecting too small or too large a receptacle, or one that does not lend itself to the flowers used. Tall and slender stemmed flowers should have tall and slender vases and should be approximately one and one half times the height of the vase. Large and massive flowers should be placed in vases that give stability to the appearance of the arrangement. When low bowls are used the height may be greater. But in all cases great care must be taken in the selection of the receptacle. Often the arrangement is marred because of an inappropriate vase or basket.

Balance may be secured by the addition of foliage, and very often foliage enhances the beauty of form and colour of the flower. Yellow-green foliage is usually the best. Blue-greens have a tendency to make the composition look heavy. Small and dainty flowers should have delicate foliage, while the larger and obtrusive flowers should have heavy foliage. In most cases flowers are more effective when their own foliage is used.

You will find it easier to arrange flowers of the one kind, but one will get a more interesting composition if a combination of two or more kinds are

used. The beauty will depend on the varieties selected and in what proportion they are used. When using two or more varieties, it is best to put them in clusters rather than scatter them through.

Balance and proportion have another aspect relative to arranging flowers for the home.

A dining-room table is not made for the display of flowers, nor is a mantel made for the purpose of being "smothered" with flowers.

A dining-room table is for the dinner service. Flowers are for the purpose of decoration and to give pleasure to the diners. To maintain balance and proportion, the decorations must not be large and heavy but low, so that it does not obstruct one from seeing the person opposite.

A mantel is a frame for the fireplace, and flowers should be used only to enhance the framing, or perhaps to relieve the sometimes severe lines.

The size and colourings of the rooms should be carefully taken into consideration when selecting and arranging flowers. When placed they should give no discordant note of colour harmony or balance proportion. They should be part of the surroundings and as such will give joy and pleasure.

REPORT OF THE COMMITTEE ON NAMES AND VARIETIES

Your Committee on Names and Varieties begs to submit the following report:

In order to give the present members of Ontario Horticultural Societies some idea of the work this committee has done in the past when it was in two sections, namely, the Committee on Plant Nomenclature and the Committee on Novelties, and, later, when it functioned under its present name of the Committee on Names and Varieties, and in order that they may readily refer to back reports of the association for the valuable matter prepared by this committee, the following titles of subjects presented in past reports are given here.

1908—Rules of nomenclature suggested for Ontario Horticultural Association.
Descriptive list of new and not well known plants.
1909—Lists of best varieties of phloxes, dahlias, gladioli and irises, and new and not well known annuals and perennials.
1910—Lists of best cannas, lilies, pæonies and roses.
1911—List of names often mispronounced with their proper pronunciation.
Lists of best chrysanthemums, begonias and sweet peas, and new plants in general.
1913—Further list of correctly pronounced words and a list of the meaning of one hundred Latin adjectives used in plant names.
List of novelties.
1914—List of thirty annual plants with their most popular English names. An additional list of fifty Latin adjectives and their meaning. List of novelties and plants not well known, and list of names often mispronounced.
1915—List of best pæonies, irises and phloxes and a further list of popular flowers with pronunciation and best common names.
1916—List of novelties and descriptive list of greenhouse primulas.
1917—List of twenty-five best Darwin tulips; list of best hybrid perpetual roses; descriptive list of hardy and semi-hardy primulas.
1918—Score cards for judging pæonies, roses, sweet peas, tulips and narcissi, and notes on the judging of flowers.
List of annual flowers with common name and pronunciation and relative hardiness.
1919—Score cards on dahlias, asters and gladioli, and suggestions on the selection of judges.
1921—Plant registration. Descriptive lists of newer varieties of irises and pæonies. List of a few of the best gladioli of recent introduction. List of the newer roses.
1922—List of best varieties of primulinus gladioli. Notes on other good gladioli. Notes on newer pæonies. List of hardy lilies.

Roses at the Royal.

This year your committee has prepared lists of the newer irises and single and Japanese pæonies; the newer gladioli; the newer roses; and a list of best ornamental shrubs.

Mention should be made at this time of the book entitled "Standardized Plant Names," prepared by a joint committee representing the American Association of Nurserymen, the Ornamental Growers' Association, American Society of Landscape Architects, American Pharmaceutical Association, American Institute of Park Executives, and Society of American Florists and Ornamental Horticulturists. In co-operation with this joint committee were the American Dahlia, Gladiolus, Iris, Pæony, Rose and Sweet Pea Societies, the American Pomological Society and the American Seed Trade Association. There were various sub-committees and collaborators.

The object of publishing such a book was "To bring about, so far as is practicable, the consistent use of a single standardized scientific name and a single standardized common name for every tree, shrub and plant in American commerce."

The committee has been engaged in the preparation of this book since 1915, and it was published by the Mount Pleasant Press, Harrisburg, Pa., during the latter part of 1923.

As many as possible should procure a copy of this book, which will be found exceedingly useful for reference as to the name to use for a plant and the spelling of the same. Some of the striking rules adopted by the committee are the doing away with the possessive in names of plants. One should say Vanhoutte spirea, not Van Houtte's spirea. The capitals of all specific names in Latin are no longer used, as Spiraea vanhouttei, not Spiraea Vanhouttei. No specific Latin name shall have more than one "i" at the end of it, thus Berberis Thunbergii shall be Berberis thunbergi. Other important rules have also been adopted. It is proposed to adopt these standardized plant names for five years, during which time the names will be subject to criticism and improvements suggested, when a new edition of the book will be printed. The book is by no means perfect and the horticultural varieties given of some kinds of plants is very limited.

Plant Registration

The system of plant registration prepared by the Canadian Horticultural Council and to be maintained by that organization, having been approved by the Minister of Agriculture for Canada, the Hon. W. R. Motherwell, was put into operation during 1923, with the result that eighteen varieties of plants were recorded with a view to registration, should they be found worthy after a thorough test at the Official Trial Gardens. Eight of these applications were in connection with old varieties of great merit, the originators of whom were dead. It was believed desirable to have these well known and recommended sorts registered.

Following is a list of the applications placed before the Plant Registration Committee of the Council, which have been accepted and are now recorded:

Kind of Plant	Name	Origin and Description	Originator
Gladiolus.....	Margaret Lewtas.	Very tall, 36 to 45 in. Flowers over 20, even on stem, a good number out at same time. Unusual shade of cerise. Does not fade easily, multiplies quickly. Early.	Miss Nellie M. Stockford, Guelph.
Rose.....	Agnes.....	Cross between Rosa rugosa (f.) and Persian Yellow (m.); habit, texture and colour of leaves resemble R. rugosa. Flower double, pale amber, fragrant, blooms early, but only once in season. Form of bud good. Quite hardy at Ottawa.	Late Wm. Saunders, Experimental Farm, Ottawa.
Gladiolus.....	Sarah Wood.....	Large, bright red flower, silvered inside; straight stem; vigorous.	Miss Nellie M. Stockford, Guelph.
Gladiolus.....	Lauretta Peer....	Seedling, parentage unknown. Light purple, deep purple way back in throat, mid-vein on petals lighter. About fifteen flowers to a spike, closely arranged.	J. Wesley Peer, Lorne Park.
Gladiolus.....	John Wesley.....	Seedling, parentage unknown. Three-cornered petals, salmon pink, suffused with deep red inside, mid-vein light. Flowers large, about 5½ in. across, 16 to 17 being borne on vigorous, erect spike.	J. Wesley Peer, Lorne Park.
Strawberry....	Scugog.....	Cross between Rango (a seedling raised by Mr. Crawford) and Bubach. Heavy cropper, good colour, very little core, solid centre, flavour fair.	Charles Byron Crawford, Cooksville.
Gladiolus.....	Lady Byng.....	Cross between Primulinus and America seedling. Pure shell pink flowers, delicately tinged with lemon yellow. Flowers 4½ in. to 5½ in. in size, about 12 to spike.	Archibald Gilchrist, Islington.
Chrysanthemum.	J. R. Booth.....	A sport of Nag-ir-roc and same shape. An exhibition variety, double, reflexed, lemon yellow in colour; flowers 9 in. across and about 7 in. deep.	Horticultural Division, 1919, Experimental Farm, Ottawa.

Kind of Plant	Name	Origin and Description	Originator
Black Raspberry.	Hilborn.....	Fruit medium to large, black, glossy, with a little bloom; firm, juicy, sweet; good flavour; quality very good; season medium. Plant vigorous, hardy and productive. One of the hardiest and best varieties.	Late W. W. Hilborn, Arkona.
Gooseberry...	Josselyn.....	Originated abou 1870. Named Red Jacket, but as there was already an English variety under this name, it was renamed Josselyn by Geo. S. Josselyn, Fredonia, N.Y. It is a cross between Houghton and Red Warrington. Fruit larger than Downing, roundish to oval, green, more or less covered with coppery red, smooth; subacid, sprightly; good flavour; good quality; season medium.	Late Dr. Wm. Saunders.
Raspberry....	Herbert.....	Originated about 1887. Thought to be a seedling of Clarke. Fruit large to very large, obtusely conical, bright to rather deep red, moderately firm, sweet and subacid, sprightly, good flavour. Quality very good. Season medium.	Late R. B. Whyte, Ottawa.
Apple.....	McIntosh Red..	Originated in 1796. Propagation begun in nursery by Allan McIntosh, Dundela, Ont., about 1870. Fruit above medium size, roundish, pale yellow almost or quite covered with crimson; subacid, sprightly, aromatic. Quality very good. Season November to February or later.	John McIntosh, Dundela, Dundas County.
Black Currant.	Saunders.....	Originated about 1870. A seedling of Black Naples Seedling. Fruit above medium to large. Skin thick; briskly subacid; quality medium; season medium. A strong grower and very productive. One of the best commercial varieties.	Late Dr. Wm. Saunders, Ottawa.
Peach.....	Fitzgerald.....	Originated about 1895. Fruit medium to large; form roundish ovate; colour bright yellow covered with deep red; freestone; flesh yellow, red at pit; texture tender and juicy; flavour good; quality good; season early to mid-September. Hardier than some others.	Mr. Fitzgerald, Oakville.
Cherry.....	Windsor.....	First exhibited in 1871. A sweet cherry of the Bigarreau type. Fruit dark red, turning almost black, oblong to conical, compressed, of large size, firm flesh, sweet and of good quality. Season medium to late.	Late James Dougall, Windsor.

Kind of Plant	Name	Origin and Description	Originator
Apple.....	Fameuse.....	Origin obscure, but it is generally supposed that seed was brought from France by the early settlers of Canada, and from this seed originated the Fameuse known also as Snow and Chimney apple. Fruit medium size, roundish, pale yellow almost or completely covered with deep red or striped with red. Flesh white, very tender, subacid, with a fine flavour. Quality very good. Season October to February.	
Lilium.....	George C. Creelman.	Lilium (f.) Sargentiae x Regale (m.). In general form resembles Regale, but is considerably larger and more perfect in form. The three outside petals carry more colour and are of a deeper shade; the odour is more delicate; the stigma is coloured, shading off down the style and the stamens are of a darker brown than Regale.	Miss I. Preston when with Dept. of Horticulture, O.A.C., Guelph, Ont., Experimental Farm, Ottawa.

BEST ORNAMENTAL SHRUBS HARDY AT OTTAWA

Many species and varieties of ornamental shrubs have been tested at the Central Experimental Farm, Ottawa, and at the branch farms and stations during the past thirty-six years, and notes have been made on their hardiness and attractiveness of foliage, flowers, form, and fruit. The height to which they grow has also been recorded. There has been a great increase in interest in the beautifying of home grounds in recent years, and it is hoped that the following descriptive list of species and varieties found to be the best at Ottawa will prove of value to those who contemplate improving the appearance of their places. This list is mainly of species and varieties with ornamental flowers. It is hoped to publish later an additional list ornamental in foliage and fruit only.

Amelanchier laevis (Shad Bush) (June Berry)—Eastern Canada and Eastern United States. There are several native species of Amelanchier which bloom early in the spring that are very ornamental at a time when there are few kinds of shrubs in bloom. Some, such as A. alnifolia var. pumila, are quite dwarf, while others become small trees. Perhaps the most ornamental is Amelanchier laevis, also called A. canadensis, which early in May is covered with loose drooping racemes of white flowers. The first leaves, which are developing at this time, are purplish and make a pleasing contrast to the flowers. This reaches a height of from thirty to forty feet. Some of the June Berries have large fruit, which is of good quality. It is known in the prairie provinces as Saskatoon. Another common name is Service Berry.

Amorpha canescens (Lead Plant)—Southern United States. An attractive summer blooming shrub with divided leaves and small bluish flowers on long close spikes. It grows about three feet in height, and looks well on a bank or in any stony or rocky place. It blooms during June and July.

Atraphaxis frutescens (A. lanceolata)—Caucasus, Turkestan, Siberia. This is an attractive low growing hardy shrub flowering in summer, the blooms remain-

ing attractive until autumn because of the calyx being persistent. It belongs to the buckwheat family, and the flowers are suggestive of those of buckwheat, and are pinkish in colour.

Berberis thunbergii (Japanese Barberry)—Japan. Height two to four feet. The best barberry for ornamental purposes. It is a dwarf, compact shrub, with bright, green leaves in summer, changing in autumn to deep red. The flowers, while not very striking, are attractive. The scarlet fruit is borne very profusely and makes this barberry quite ornamental throughout the winter.

Caragana arborescens (Siberian Pea Tree)—Siberia, Manchuria. The Siberian pea tree is one of the most useful hardy ornamental shrubs for it is really a shrub, though reaching a height of fifteen to eighteen feet or more. The foliage is attractive, and the yellow pea-shaped flowers, which appear while the leaves are still young in May, make it a striking object during the spring. Because

Sweet Peas, grown by a Boy.

of its great hardiness and its ability to withstand drought it is particularly useful on the prairies as a windbreak and for hedge purposes. It makes a very good hedge in eastern Canada also.

Caragana frutex var. grandiflora (Large Flowered Caragana)—Caucasus. Height four to six feet. In bloom third week of May. Flowers large, bright yellow, pea-shaped. Very pretty when in full bloom. This variety resembles C. frutex or C. frutescens as it is sometimes called, but has larger flowers than this species. The bush is somewhat pendulous, which makes it rather graceful.

Caragana pygmaea (Dwarf Caragana)—Caucasus to Siberia and Thibet. This species of Caragana differs very much from the others, but has an attractiveness all its own. It is a comparatively low growing shrub of spreading habit, reaching a height of about four feet. The leaves are of duller green and narrower than either C. arborescens or C. frutex, and the flowers, which are in bloom in May, instead of being altogether yellow are orange and yellow. This makes a neat low growing hedge plant though the leaves are rather too dull in colour for best effect.

C. tragacanthoides resembles C. pygmaea very much, but is of looser growing habit.

Chionanthus virginica (Fringe Tree)—Eastern and Central United States. The fringe tree is usually really a shrub and one of the most interesting hardy species. It blooms in June after the flowers of most hardy shrubs are gone.

The flowers are white and borne in long loose panicles, and this, combined with their narrow petals, give them the fringe-like look which suggest the name. Some shrubs bear only staminate flowers, and these are more ornamental than the others as the panicles are larger. Specimens of this shrub are now about nine feet in height at Ottawa, but where native it will grow from twenty-five to thirty feet high.

Clethra alnifolia (Sweet Pepperbush)—Eastern United States. One of the latest blooming shrubs, being in flower from July to September. It grows from four to eight feet in height, and has small sweet-scented white flowers which bloom in compact racemes. This shrub succeeds best in rather moist soil. Another species, Clethra acuminata, is a taller grower, and is quite hardy at Ottawa.

Cornus alba sibirica (Siberian Dogwood)—Siberia, North China. The Siberian Dogwood is attractive when it is in flower in late May or early June, but it is especially so in winter when the bright red bark is very striking. There is a yellow barked dogwood called Flaviramea which looks well in winter in contrast with the red bark of the others.

Cytisus (Broom). None of these are very important flowering shrubs in Eastern Canada, though a few of the lower growing species are fairly hardy and quite ornamental. The hardiest is, perhaps, Cytisus elongatus, with bright but rather pale yellow flowers. C. ratisbonensis is very like it. These bloom in the latter part of May and are quite showy at that time. The bushes reach a height of about three feet.

Cytisus nigricans, which blooms in June and July, later than C. elongatus, is more ornamental than the latter as the flowers are of a richer yellow and are in long, slender racemes, but is not perfectly hardy at Ottawa and gradually dies out.

Another Cytisus, which blooms well every year, though the tips of the branches are usually killed back, is Cytisus purpureus and its varieties. This pretty shrub is low growing, being two feet and under in height. The flowers vary in colour from light pink to purple. It is in bloom in May. A cross between this and C. hirsutus, namely C. versicolor, with pale purple and light yellow flowers, is trailing in habit.

Another low growing species about one foot in height and very ornamental is Cytisus purgans. This usually blooms well and is practically covered with flowers of the rich yellow colour of the well known Broom.

Daphne mezereum—Europe to Altai and Caucasus. The very sweet-scented flowers of this shrub appear in the latter part of April, and are among the first spring flowers. The flowers are pink, but there is a white flowered variety also. This shrub will eventually reach a height of about four feet.

A low growing, almost creeping species, Daphne cneorum, is very hardy also, and is one of the most sweet scented of flowering shrubs. The flowers are pink also.

Deutzia gracilis—Japan. This is a charming little shrub, reaching a height of about three feet, and blooms during the early part of June, and is a mass of white flowers. It is not so hardy as Deutzia lemoinei, which is quite hardy at Ottawa, though not so attractive as D. gracilis.

Diervilla hybrida. One of the hardiest and most attractive of these at Ottawa is Eva Rathke. It begins blooming in June and continues throughout the summer. The flowers are very attractive and dark red in colour. It grows from three to five feet in height. Most of the weigelias are too tender at Ottawa. Some specimens of D. rosea are fairly hardy.

Forsythia suspensa (Golden Bell)—China. The golden bell blooms before the leaves are out in the spring, and if the flower buds are not killed in winter the branches will be covered with yellow flowers. It is a graceful shrub of pendulous habit, reaching a height of six to eight feet. Owing to the danger of the flower buds being killed in winter, it would be desirable to plant these where they will be out of the sweep of the wind. The hybrid variety, F. intermedia, though little, if any, hardier, is a very free bloomer, and its variety, spectabilis, has deeper coloured flowers.

Genista tinctoria (Dyer's Greenwood)—Europe, West Asia. Nearly all the genistas winter-kill at Ottawa, but this species, which has deep yellow flowers, though killing back a little, is fairly satisfactory, and individual bushes live for many years and reach a height of about three feet. The variety, elatior, is somewhat stronger growing than the species. There is a double flowered almost creeping form, G. tinctoria plena, which is very attractive especially for rockeries.

Halesia carolina (H. tetraptera) (Silver Bell)—Southeastern to Central United States. The silver bell, or snow drop tree, as it is sometimes called, does not make anything more than a shrub at Ottawa. In some years it is considerably injured by winter, while in others one is rewarded for growing this beautiful plant by having it bear during the month of May an abundance of drooping white bell-shaped flowers, which is very conspicuous as they open before the bush is fully clothed with leaves.

Halimodendron halodendron (H. argenteum) (Salt Tree)—Central Asia from Transcaucasia to the Altai. The salt tree, which is really a shrub, grows from five to six feet high, and is especially valuable because it flowers late in June after so many other shrubs are out of bloom. The flowers are lilac or pale pinkish purple in colour and the leaves bluish green. It is a very hardy shrub, and is succeeding well on the prairies.

Hydrangea arborescens grandiflora—United States. Height four to six feet. A very free blooming variety with large panicles of white flowers which come in succession from July to September. The bush kills back each year, but it is sufficiently hardy to ensure abundant bloom.

Hydrangea paniculata grandiflora (Large Flowered Hydrangea)—Japan. Height six to ten feet. Blooms remain attractive from August until October. Flowers white, gradually becoming pink, and borne in very large panicles. This is one of the finest hardy shrubs. To get best results the bushes should be pruned back severely every spring and given an abundant supply of water during the growing season.

Lespedeza sieboldii (desmodium penduliflorum) (Bush Clover)—Japan. This graceful plant is really not shrubby at Ottawa as the branches kill to the ground every year, but strong stalks are thrown up from the ground each spring, and the shrub has usually a profusion of rosy purple flowers in late September and early October. It is very graceful and attracts much attention when in bloom.

Lonicera tatarica (Tartarian Honeysuckle, Bush Honeysuckle).—Siberia, Tartary. Height, five to ten feet. In bloom third week in May. Flowers bright pink. This is an old favourite and one of the hardiest shrubs grown. There are many varieties of this fine shrub and a large number of hybrids. These vary in colour of flowers from white to rose. Some of them have yellow coloured fruit. Among the best are: *L. tatarica pulcherrima*, with rosy petals, having pink margins; *L. tatarica gracilis*, flowers rosy in bud, pink and rose when open; *L. tatarica speciosa*, flowers large, pink and rose; *L. tatarica splendens*, flowers pink in bud, pink and white when open; *L. tatarica grandiflora rubra*, flowers

rosy in bud, rosy with pink margin when open; *L. tatarica elegans*, flowers pure white; *L. tatarica alba grandiflora*, flowers white; *Lonicera morrowi*, with white flowers, is of more spreading habit, and is very ornamental also.

Mahonia aquifolium (Oregon Grape or Holly Leaved Barberry)—Canada and the United States. Height, two to three feet. A very attractive low growing shrub. The leaves are very glossy above, and sometimes have a pleasing bronzy tint. The edges are toothed, and the leaf on the whole is quite suggestive of that of English holly. During the latter part of May this shrub blooms freely, there being numerous clusters of small, bright yellow flowers. While this is an evergreen, the old foliage is usually browned and disfigured by winter unless protected with a little straw, but the new growth soon appears in any case and the old foliage is not noticed. It increases rapidly by suckers, and is fine for underplanting in partially shaded places.

Philadelphus coronarius (Mock Orange or Syringa)—South Europe. Height, five to ten feet. In bloom second week of June. Flowers white with a strong, sweet odour. A well known popular shrub. In addition to this species, there is Philadelphus grandiflorus, a taller and later blooming species, P. grandiflorus speciosissimus, several other species, and many fine hybrid varieties, among the best of which are: bouquet blanc, nuée blanche, voie lactée. The golden-leaved variety of Philadelphus coronarius is one of the best hardy golden-leaved shrubs.

Physocarpus opulifolia (Ninebark)—Canada, United States. This is a rather large shrub, which is satisfactory in rather shady places or along streams. It reaches a height of eight to ten feet or more, and bears many white flowers in clusters in June. It is often known as spiraea opulifolia. There is a golden-leaved variety of this, which makes a nice variety in the landscape if golden-leaved shrubs are desired.

Potontilla fruticosa (Shrubby Cinquefoil)—Canada, United States, Europe, North Asia. This is a native plant which succeeds well under cultivation, and blooms continuously from June until autumn. The flowers are an attractive shade of yellow. It grows from two to four feet high.

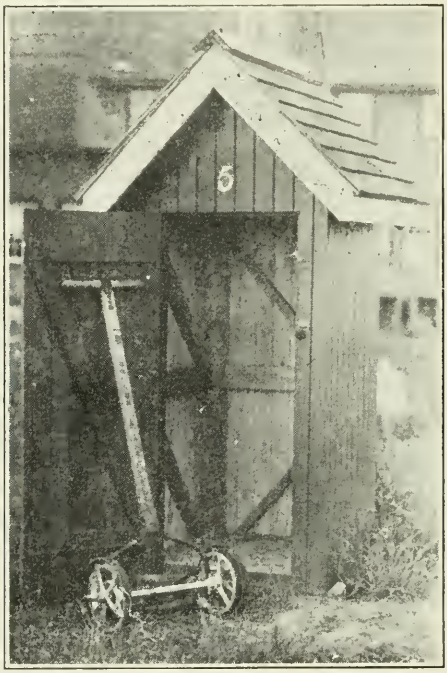
Prunus nana (Russian Almond).—Russia and West Asia. The Russian almond is grown under the name of prunus japonica and prunus nana. It blooms early in May; the flowers are pink in colour, and, though rather small, are conspicuous as the bush is not yet in full foliage when it is in bloom. There are double flowered forms, both pink and white, most of which may be referred to prunus japonica. The height of these shrubs varies from three to five feet.

Prunus tomentosa (Downy Leaved Cherry)—Japan, North China, Manchuria. It is desirable to have as many points of merit as possible in flowering shrubs, and this one is ornamental in flower and bears a useful fruit as well. It blooms early in May. The buds are pink, though the petals are white when they expand, and the calyx is red. It is a very hardy bush cherry. The fruit is small compared with the cultivated sour cherries, but is excellent when canned. This shrub is very hardy, and has reached a height of about ten feet at Ottawa.

Prunus triloba plena (Flowering Almond).—North China. This double flowered ornamental almond is one of the most attractive shrubs in spring, those on their own roots being the most satisfactory. When top-grafted on other stock, they frequently winter kill, and at Ottawa are not at all satisfactory, whereas when grown in bush form they bloom abundantly year after year, and the double pink flowers, which are in bloom before the leaves are fully out, are very attractive and make this a striking looking shrub. Specimens at Ottawa have reached a height of about ten feet.

Pyrus japonica (Japanese Quince)—China and Japan. This shrub blooms very early, and has bright red flowers. It is somewhat tender, and should not be planted in a very exposed place. A hardier form of this is pyrus maulei. The former grows from three to six feet high, and this latter only reaches about three feet in height.

Rhododendron viscosum (Clammy Azalea or White Swamp Honeysuckle)—Canada and United States. The hybrid rhododendrons are not satisfactory at Ottawa, and few of the species either, though, with special protection in winter, fine blooms have been produced on some of the good hybrids. There is one



Tool House for use of Members, Iroquois Falls.

native species, however, formerly known as azalea viscosa, which does well under ordinary conditions. The sweet-scented flowers are white, sometimes tinged with rose, and this is well worth growing where one desires an assortment of flowering shrubs. It blooms during June to July. Varieties of rhododendron japonicum can also be grown successfully with a little protection.

Ribes aureum (Missouri Currant)—Canada, United States. Height, six to eight feet. In bloom fourth week of May. Flowers yellow and very sweet-scented. This currant is quite ornamental, especially when in bloom, and again in summer, the fruit, which is quite palatable, makes it attractive at that time.

Robina hispida (Rose Acacia).—Southeastern United States. This rose acacia is one of the most attractive hardy shrubs. It blooms from June more or less throughout the summer, and the rosy pink flowers are very conspicuous and ornamental. The foliage is attractive also. If not propagated on a non-suckering stock, it is liable to sucker considerably, but usually not sufficiently to be troublesome.

Rosa (Roses). It is almost needless to write that the roses are among the most attractive shrubs. A separate paragraph has been given to two of the

hardy species, but, in addition to these, there are such hardy shrubs as the Persian and Harrison yellow roses, Austrian briars, the Provence or cabbage roses, the moss roses, the damask roses, the Scotch rose, and others. In Bulletin No. 17, new series, on "Hardy Roses, Their Culture in Canada", will be found fuller particulars in regard to the many beautiful varieties that are now available.

Rosa rubrifolia (Red-Leaved Rose). This is such a distinct shrub that it should be treated separately. The leaves are purplish red, making it a striking object during the growing season even when out of bloom. The flowers are rather small and deep pink in colour, and the fruit is bright red and shows up well after the leaves have fallen. It is very hardy, succeeding well on the prairies, and reaches a height from six to eight feet.

Rosa rugosa (Japanese Rose)—Japan. Height, four to five feet. In bloom second week of June. Flowers very large and deep pink. This is a beautiful rose with fine flowers and very ornamental leaves, which are large, thick, and shiny. There is a white-flowered variety which is also good, also a number of hybrids between rugosa and varieties of hybrid perpetual and tea roses, most of which are quite hardy.

Sambucus (Elder). There are several species of elder which make very satisfactory shrubs for growing near streams or rather moist places. One species, sambucus racemosa, and its variety, pubens, blooms in May and has red berries, and another one, sambucus canadensis, blooms in June and July and has purple-black fruit. A variety of this called maxima has enormous panicles of flowers and is very showy. Sambucus nigra, an European species, corresponds somewhat to canadensis, but blooms earlier. The golden-leaved variety of elder is very attractive to many people.

Sorbaria sorbifolia (Spiraea Sorbifolia)—North Asia from Ural to Japan. A well-known shrub, growing from four to five feet in height. It is one of the most useful on account of its flowering in summer when most other shrubs and trees are out of bloom. The leaves, which resemble those of the mountain ash very much, from which it gets its name of sorbifolia, are quite attractive at all times, but in spring are particularly so. This shrub blooms from late June until autumn, and its large panicles of white flowers make it a conspicuous object. Its fault is that it suckers badly, and on this account should not be planted near anything which it is likely to crowd out. There is a taller growing species, not quite hardy enough at Ottawa, which blooms later, namely S. aitchesonii, the long branches of which should be bent down so that the snow will cover them in winter. If this is done, one is likely to have very fine panicles of bloom during late summer and autumn. This grows from eight to ten feet in height and is very ornamental.

Spiraea alba (Meadow Sweet)—Eastern to Central United States. The meadow sweet is a native shrub which is very useful for ornamental planting, especially in damp situations. It grows from four to five feet high and flowers in summer when there are few shrubs in bloom. The flowers are small and white, but borne in good-sized panicles. There are two other species very much like the last, namely, spiraea latifolia, with larger panicles, and S. salicifolia, both with white flowers though sometimes pinkish in colour. A hybrid species known as spiraea billardii is very similar to the above in habit, but has rosy pink flowers.

Spiraea arguta—Europe. Height, three to four feet. In bloom third week of May. Flowers pure white, produced very profusely in compact clusters. This is the earliest flowering spiraea grown here, and is one of the best hardy

shrubs of rather recent introduction. It is a graceful little spiraea with pendulous branches, but its chief beauty lies in the abundance of its pure white flowers.

Spiraea media—Southeast Europe to Japan. One of the earliest blooming hardy spiraeas flowering at the same time as S. arguta, but being much hardier. The bush is not as graceful as either the latter or S. Van Houttei, but, when in full bloom and well covered with the compact clusters of white flowers, it is very ornamental, and being very hardy, is especially desirable for the prairies. This is sometimes found under the name of S. oblongifolia, which is a synonym of S. media subintegerrima, and little different from the type.

Spiraea Van Houttei (Van Houtte's Spiraea)—Europe. Height, three to five feet. In bloom first week of June. Flowers pure white, borne very profusely in small, compact clusters on pendulous branches. This graceful shrub is very beautiful when in full bloom. Even when out of bloom its pendulous habit and foliage make it attractive.

Syringa japonica (Japanese Tree Lilac)—Japan. This is a very satisfactory small tree or shrub as it blooms so late, and is tall and striking looking. Trees at the Experimental Farm, Ottawa, are, after thirty years' growth, now about twenty feet in height, and about the end of June are a mass of creamy white flowers. They are not perfumed, as the ordinary lilac is, but they are very handsome. Syringa amurensis is very similar.

Syringa villosa (Chinese Lilac)—North China. This is a strong growing lilac and is growing taller than at first expected, some specimens being now from eight to ten feet high. The leaves are rough and rather coarse looking, but this tends to make the shrub more striking. It flowers during the second week of June, closely following S. josikaea. It is a free bloomer and the flowers, which are not highly perfumed, are bluish-pink and produced in good-sized panicles. This is a very desirable species. A hybrid between this and S. josikaea called lutèce is a very desirable lilac. Syringa josikaea is not so attractive as S. villosa, but is a good hardy shrub.

Two-year-old Perennial Border, showing Aquilegia.

Syringa vulgaris (Common Lilac)—Eastern Europe. The common lilac and its varieties bloom during the first half of May, being usually at their best from the 20th to the 27th. There are many fine varieties of the lilac varying in colour from white to the deepest purple. Some are single and some semi-double or double. Among the best are the following:—

Single:
- Alba Grandiflora—white.
- Aline Mocqueris—purplish-mauve, brighter in bud.
- Congo—purplish-mauve, one of the deepest shades.
- Decaisne—large, bluish lilac, very fine.
- Dolepin—bluish.
- Jacques Calet—purplish-mauve in bud, violet mauve when opened, flowers large.
- Lovaniensis—almost pink.
- Toussaint-Louverture—bishop's violet, almost purple, one of the darkest in colour.

Double:
- Charles Joly—vinous mauve, with twisted petals.
- Comte de Kerchove—purplish-mauve changing to lighter shades.
- Edith Cavell—flowers large, white, of good substance. A very fine white variety with large panicles of bloom.
- Emile Lemoine—purplish-mauve changing to heliotrope.
- Georges Bellair—purplish-mauve, petals tipped with white.
- Hippolyte Maringer—lilac and bluish lilac effect, petals twisted.
- Jean Bart—purplish-mauve to violet mauve, flowers with twisted petals.
- Leon Gambetta—pinkish lilac, large panicle.
- Madame Abel Chatenay—white.
- Madame Casimir Perier—white.
- Mare Micheli—violet mauve changing to heliotrope and white, flowers large.
- Michel Buchner—violet mauve to bluish-violet.
- Olivier de Serros—bluish lilac, large panicle.
- Paul Thirion—later than most, rosy in bud, lilac when open.
- President Fallieres—pinkish lilac, late.
- President Viger—rosy in bud, lilac when opened, changing to pinkish.
- Wm. Robinson—rosy lilac in bud, lilac when open.

Two other fine hardy lilacs which should be in every collection are Syringa rothomagensis and S. pubescens.

Tamarix pentandra (Summer Tamarisk)—Southeast Europe to Central Asia. A very pretty tamarisk, blooming from July until late summer. The flowers are small and pinkish in colour. It makes a very useful and graceful shrub and grows from four to six feet in height.

Viburnum (Native Viburnum). There are several native species of viburnum, in addition to the high bush cranberry, treated separately, which are very satisfactory shrubs on account of their ornamental flowers and foliage and because they will succeed in rather shady places where many other shrubs will not. Perhaps the most attractive of these is V. cassinoides or withe-rod, which blooms in June. This grows from five to ten feet in height. Other taller species are: V. lentago, the sheep berry, and V. prunifolium, the black haw. All of these have white flowers and attractive foliage. The arrow-wood, virburnum dentatum, is also quite attractive and distinct in habit and foliage from the others. A good group of native virburnums makes a very interesting and attractive feature of any ornamental grounds, and they are particularly useful where there is already some natural shrubbery.

Virburnum luntana (Way-Faring Tree)—Europe. Height, eight to twelve feet. In bloom third week of May. Flowers white in compact flat heads. The fruit is very ornamental, being scarlet, turning to dark purple when ripe.

Viburnum opulus (Guelder Rose, High Bush Cranberry)—Europe. Height, six to eight feet. In bloom second week of June. Flowers white, in large clusters. This is, at all seasons of the year, an ornamental shrub, as the abundant bright scarlet fruit remains on the bush all winter. The native species, V.

americanum, is also a very good ornamental shrub. V. sargentii is handsomer in bloom than either of the above, but the fruit is not so attractive.

Virburnum opulus sterile (Snowball). Height, eight to ten feet. In bloom second week of June. The almost round clusters of pure white flowers of this shrub are well known. This is one of the most ornamental hardy flowering shrubs, but for many years it has been badly attacked by aphis. To destroy these it is necessary to spray the bushes just as the buds are breaking in the spring. This is very important, as at this time the eggs are hatching. A second spraying should be given in a few days, and while the leaves are still only partly expanded. Once the insects cause the leaves to curl it is almost impossible to get at them. Kerosene emulsion, whale oil soap, or nicotine preparations may be used for spraying.

List of Twelve Most Satisfactory Ornamental Shrubs or Groups of Shrubs in Order of Blooming, and Covering the Season Well

Spiraea arguta.
Caragana frutex var. grandiflora.
Lonicera tatarica and varieties.
Lilacs.
Spiraea Van Houttei.
Viburnum opulus.
Philadelphus or Mock Orange.
Roses.
Robina hispida.
Hydrangea arborescens grandiflora.
Tamarix pentandra.
Hydrangea paniculata grandiflora.

SOME OF THE NEWER IRISES

Miss M. E. Blacklock, Meadowvale

Cretonne (Bliss). This iris has a peculiar fascination of its own; its bronze purple standards, deep maroon falls and rich orange beard give a somewhat lurid effect. By chance it was placed next to Mrs. Cowley and behind them both was a strong lavender variety and strange to say, the effect was very rich and beautiful.

Dominion (Bliss). I am sorry to say I have nothing better to report on the behaviour of this iris. It blooms so late that the heat of our late June weather makes it wilt almost immediately, so we are left with only a hint of its beauty. It is a very poor grower with me; perhaps in pure sand it might thrive. This past July we transplanted it to a very choice, sheltered place to try it out once more.

Delila (Denis). A charming little iris, the standards of flesh-white and the falls a wonderfully brilliant shade of red-purple. It is quite unique in colour.

Gold Crest (Dykes). A perfect little gem, rich lavender-blue throughout with a very conspicuous golden beard of medium height and many flowered.

Morwell (Bliss). Huge flowers of a very clear shade of lavender-blue throughout. This and Ballerine are rivals in my affections; at present I rather lean to Morwell.

Mrs. Cowley (Bliss). Another of the pinky-bronze toned ones, with wine red falls, but there is a little bit of dull yellow about it which lights up the flower wonderfully. It is of medium size and height, and very free flowering; decidedly worth while.

Opera (Vil.). This is another of the bronze-wine colour combinations and is considered a fine variety; the colours are rich but sombre.

Souvenir de Mme. Gaudichau (Millet). A wonderfully fine, rich purple throughout, the falls being a little deeper than the standards. The large flowers

are well set on the tall stems, giving it an imposing, stately air. It fills a long-felt want of a tall dark iris. Kochii is a richer colour, but it lacks height and is so early that it is soon over; while Mme. Gaudichau, though early, lasts longer.

Mlle. Schwartz (Denis). This exquisitely beautiful variety, previously described, has proved much hardier that I had any hopes of, but it is a very slow grower. However, the tiniest rhizome seems quite capable of supporting a good, tallish, flower stem, well furnished with large, well-poised flowers, of the most delicate lavender-blue.

Japanese and other Single Pæonies

Akalu (Japan). Guard petals a good rich pink with paler reverse, filamentous petals cream to pink. A very attractive variety. A vigorous grower and free bloomer with thin, wiry stems and rather small, dark green leaves. Height about twenty-four inches.

Etienne dessert (Dessert). A pretty pink, single pæony, with ordinary yellow stamens, almost like a large wild rose.

Hano-no-sato (Japan). Guard petals of "American Beauty" colour with inner, very narrow, petals of a shade or two lighter, which fade, as the flower ages, to almost a pinky-white. These narrow petals entirely fill the centre, giving the flower the appearance (somewhat) of a cactus dahlia. A decidedly odd and very effective variety. Large, dark green, glossy leaves and long strong stems. Height, thirty-six inches.

Ho-gioku (Japan). Guard petals white, central filamentous petals of creamy yellow in a fairly close boss, very beautiful; height, thirty inches.

Hinode-Sakai (Japan). Guard petals violet rose, and the central petals a curious mix-up of filamentous petals and wider ones, of a trifle paler shade than the guards. Not a very attractive colour though some people admire it. Leaves rather small, dullish green, stems small and somewhat lax. Height, thirty inches.

Isani-Guidi (Japan). Large, pure white flowers with long, very beautiful buff and white filamentous petals. Blooms in clusters of two or three, on long strong stems. A perfectly lovely thing. Height, thirty-six inches.

Kameno-Kerogama (Japan). A good strong cerise-pink with yellow filamentous petals streaked with rose, vigorous grower with short wiry stems, a paler coloured Mikado, but the colour is deep enough to be fairly brilliant.

Kukenu-Jishi (Japan). So faint a pink as to be practically a white, with yellow filamentous petals. Not quite so fine as Isani-Guidi, but very lovely. Strong grower with dark green leaves and small but stiff stems.

Kisana-Jittie (Japan). White guard petals with cut up (anemone flowered) centre of white. Nothing to specially recommend it.

Kino Kimo (Japan). Guard petals a brilliant crimson carmine in a double row, with a large close boss of filamentous petals of buff, lined pink, even more showy than Mikado. Rich green, fairly large leaves, glossy stems not very strong. Height, thirty-six inches.

La Fiancee (Dessert). A good single white, with ordinary (not filamentous) stamens. Very like "Dawn" (Barr), but with stiffer stems. Long, narrow, rich green leaves. Height about twenty-four to twenty-six inches. Beautiful, but less so than Marguerite Dessert, the latter being larger and finer in every way, probably the best of its type.

L'Etincelante (Dessert). Another pretty single pæony of a little deeper colour than Etienne dessert, yellow stamens (not filamentous).

Nymphe (Dessert). Guards pink in bud and on first opening and gradually fading to white, very pretty, with a large cushion of yellow stamens. Blooms in

Fort William Exhibition.

clusters of three or four. Rich green, fairly large leaves. Not unlike Marguerite Dessert which also opens a faint pink.

Ohirama (Japan). This is beautiful, but it is eclipsed by Tokio, which it resembles.

Tokio (Japan). Guard petals, a very lovely pink, with a large tuft of soft yellow filamentous petals in the centre. Blooms in clusters. I am not sure but what I prefer Tokio to the (supposedly loveliest of all pink Japanese pæonies, Tamatbako. But there was no chance of comparing them this year as the latter had been divided and was not blooming. In any case Tokio is very beautiful.

The above notes were made in the field in 1923.

THE CREAM OF SOME OF THE NEW VARIETIES OF GLADIOLUS

H. L. Hutt, Georgetown

Since the American Pæony Society has put a rating on most of the varieties of pæony in cultivation, and the American Iris Society has in like manner rated most of the varieties of the flower it fosters, it has been urged by many that now that we have American and Canadian Gladiolus Societies, gladiolus growers should in a similar way devise a plan to have a rating put on the varieties of gladiolus.

The difficulty of carrying out such a scheme may be realized when we consider the vast number of varieties that have already been named, and have in mind also the wholesale rate at which new varieties are being introduced by scores of breeders on this continent and in Europe.

C. W. Brown in his valuable work on gladiolus nomenclature lists over 5,000 varieties. No doubt several times as many more are now being grown under number in the trial grounds of enthusiastic breeders in the hope that they

will eventually prove worthy of being offered to the public as something better than has been.

A recent writer in the "Flower Grower" suggests that a vote be taken to determine one hundred of the most popular varieties, which would no doubt be very interesting, but it would in no way determine that they were the best, for by far the greater number of the fine new varieties are but little known, except by those conducting extensive trial ground tests.

We had in our trial plots last year over four hundred named or numbered varieties, and while many of these have been mentioned in previous reports, the following list contains what might be rated as some of the best of the more recent new varieties. Some of them are of exceptional merit, and all of them are well worthy of a place in the collection of any enthusiastic glad grower.

Albania (Kemp). Large, early, one of the best pure whites.
Attraction (Zeestraten). Prim. Early, salmon pink, golden throat.
Arbutus (Coleman). A real Arbutus, pink, early and large.
Armistice (Groff). One of the finest of Groff's wonderful reds.
Britannica (Groff). Large scarlet with white in throat.
Buttercup (Kemp). A clear buttercup yellow, early.
Catharine Coleman (Coleman). A brilliant pink, a medal winner.
Carmen Sylva (Prestgard). A pure white of exceptional merit.
Chateau Thiery (Vos). Bright cerise, with red blotch bordered yellow.
Detroit (Vaughan). Very large, light pink pencilled with crimson.
Early Snowflake (Kemp). A good early white.
Ethelyn (Fischer). Prim. A beautiful orange yellow, bright red markings.
Fair King (Vos). Brilliant scarlet.
Fischer's No. 317. A promising seedling, light creamy yellow, scarlet markings.
Fairy Queen (Zeestraten). Creamy orange pink, very dainty.
General Joffre (Vos). Bright scarlet.
Hazel Dawn (Hoeg). A strawberry pink, very fine.
Henry C. Goehl (Fischer). Large early white, with beautiful crimson blotch.
Jenny Lind (Hoeg). Soft apricot pink, yellow throat, a beauty.
John M. Good (Vos). White with purple throat, citron yellow in bud.
Jewel (Zeestraten). Prim. Light salmon pink, large golden blotch.
Jewel (Groff). Large lavender pink.
Kalamazoo (Vaughan). Large purple violet, creamy line in each petal.
Leota (Coleman). A pure clear glowing pink, very fine.
Louvain (Groff). A beautiful soft pink.
Liberty (Zeestraten). Prim. Salmon pink with gloden blotch.
Maine (Vos). A large fine white.
Mary Alice White (Vaughan). Rose pink, lavender mauve markings.
Miss Christine Truer (Rose Pearl) (Vos). Very early, large light pink.
Mrs. Caesar (Vaughan). Lavender rose shading to lilac.
Mrs. Fred C. Peters (Fischer). Soft lavender with crimson blotch.
Mohawk (Kemp). A showy red with large white throat blotch.
Mrs. P. Vos (Vos). Flaked salmon, yellow throat, attractive.
Nautilus (Coleman). A pearly pink of nautilus colouring.
Pink Wonder (Kemp). Very large, light pink, wide open flowers.
Radium (Vos). White shaded pink, red blotch.
Ruby (Zeestraten). Prim. Dark purple red, a new colour in prims.
Sheila (Coleman). Very early, large salmon, exceptionally fine.
Shiawassa (Vaughan). A fine pink, many flowers open.
Sovereign (Vaughan). A glorified Baron Hulot, large and later.
Sunrise (Zeestraten). A beautiful orange.
Sweet Lavender (Coleman). Light lavender with striking garnet blotch.
Treasure (Zeestraten). Prim. A bright golden yellow, very early.
Utah (Vos). A large white, rose feathering on lower petals.
Vaughan's White (Vaughan). A grand white.

SOME OF THE NEWER ROSES TESTED AT THE CENTRAL EXPERIMENTAL FARM, OTTAWA

Miss I. Preston, Ottawa

Hybrid Teas and Pernetianas

Constance was one of the most effective yellow roses in the garden last summer. Buds are deep yellow sometimes splashed with crimson, but open out a paler shade.

Gladys Holland has an orange shade mingling with the pink of its well-shaped flowers.

Isobel is a large single rose of a beautiful shade of salmon pink with a golden base. Like many single roses, the long pointed buds are particularly fine.

Jean C. N. Forrestier is a strong growing plant and has brilliant Lincoln red blooms. It is a pernetiana and is about as hardy as hybrid teas.

Modesty is well named, for its creamy flowers slightly tinted with pink are very dainty. It has a beautifully shaped bud.

Mrs. B. J. Walker is a vigorous grower with large double rather flat flowers, cerise pink in colour.

Mrs. Henry Morse has a well-shaped flower. It is deep pink with silvery pink on the reflex petals and orange shades in the heart, a very beautiful rose.

Souvenir de Claudius Pernet, the yellow rose that is so beautiful when grown under glass does well in the garden. The flowers are well shaped, pale yellow in colour but not as many of them as one might wish.

The Queen Alexandra, a vigorous grower with flowers of a brilliant bright red colour. The catalogues describe this rose as having vermilion on the face of the petals with old gold reverses. There are not distinctly two colours in our flowers, but no doubt it is the blending of the two that makes it so striking.

These have lived at least one winter in the rose garden at Ottawa, but the following we have only had one season.

Edel and Edith Cavell, two white hybrid teas which are well worth a trial.

We also tried for the first time six varieties of the Rev. J. H. Pemberton's hybrid musks. The flowers of these are in clusters, semi-double and in bloom all summer. The foliage is dark bronzy green, thick and glossy. The bushes grow between three and four feet high.

Clytemnestra, copper buds opening pale yellow.

Daphne, pink.

Moonlight, white flushed lemon.

Pax, pure white with conspicuous golden stamens.

Prosperity, white tinted pink in the bud.

Vanity, rose pink.

We have no idea if these hybrids will be hardy in the severe climate of Ottawa, but probably they will be in the warmer sections of the Province.

Polyantha Pompons

There are three new varieties of these useful roses that seem to be well worth growing.

Coral Cluster with beautiful coral pink flowers. The colour fades, but the trusses of bloom are always effective.

Nurse Cavell, quite different from the hybrid tea of the same name, is the darkest red polyantha that we have, a beautiful rich shade and always in bloom.

Rodhatte has large semi-double bright rose flowers and makes a splendid show in the garden.

REPORT ON NEWER FLOWERS

W. E. Saunders, London

Gladioli

The outstanding new one in my garden was Sheila. In this variety there is a purity and smoothness (a poor term) that no other salmon has achieved, and it was the admiration of everyone.

The three great reds from Groff held their supremacy easily—Majestic, which I am told Mr. Groff regards as his finest flower, Armistice and Meteor. My Meteor does not agree with those shown at London several years ago, though procured directly from Campbell Bros. The one I received is so good that I am unable as yet to say that I consider Majestic superior.

At the Guelph show, I was much taken with Elora, the Burbank variety introduced by Davis, but it is much inferior in colour to Mme. Boulay, Lemoine, one stalk of which opened for me. In this variety the colours please me better than in Elora, and the blotch, while larger than in Elora, is of a most harmonious shade of cardinal. I place it at the very top of the blotched kinds.

The seedling class at Guelph attracted much attention, and the decision of the judges met with much comment, favourable and otherwise. The two contenders for first award annoyed me personally, the red purple of the winner is much like Magenta, Kunderd, whose only virtue in my eyes is that of virility, and Capt. Boynton, the runner-up, while a good grower with a fine spike, is more or less tinged with the shade of the blotch, a sort of purplish red similar to that which fails to please me in Peace.

At St. Thomas there were many novelties, the outstanding one being Ethelyn by Fischer, a much improved Orange Queen of most desirable qualities, so far as one may judge by a single inspection.

Irises

In this class, Ambassadeur improved its standing, and was unanimously voted first place in my garden. Its glorious colour, combined with its vigour and stateliness left no doubt in the minds of the visitors where their preference lay.

It chanced that Asia, Dominion and Lent A. Williamson bloomed together, and all who saw them joined with a recent writer in wondering what was wrong with that committee when they place Lent A. at the head of all irises. For me, Asia stood first, though it is perhaps not fair to make a comparison, its qualities being so different from those of Dominion, which shows the velvety falls characteristic of Ambassadeur and Black Prince. But Lent A. lacks substance to stand up, and the colour is entirely inferior to that of the others, and is outclassed in that respect by many other varieties.

Among the other bicolours, Shalimar qualified for the discard, and I note that Wallace says "of temporary value." Queen Caterina probably did not do itself justice, and was inferior, and Mrs. Brewster also. Athene was a new white for me. Miss Sturtevant's introductions are seldom seen in Canada because of the superior quality of the European varieties which may be purchased for the same price. Asia, for instance, at five or six dollars, Ambassadeur, Magnifica, Ballerine at a dollar or two, cannot be approached in value among those offered south of our border. Athene appears to be a seedling of Mrs. Darwin, and of not much greater value.

Anna Farr, glorious in 1902, lived up to its reputation, and not only failed to flower, but nearly died of rot, while Edith Cavell, Millet's new hundred franc

white, died outright, but was generously replaced by the orginator. Queen Mary, another white acclaimed as great, did not favour me with a bloom, but Francina, Hilda and Mme. Savigne showed themselves worthy variants in the style of Chereau, Hilda particularly looking like a coming variety. Last in this section I must mention Mme. Bazes, or perhaps Baze, as spelt in the most recent Millet list. This is by M. Denis, and has a ground colour of ivory, with a reddish edge called "Ageratum Blue" in the catalogues. When mine bloomed, I said at once "There is the little ivory flower from the Toronto show, 1922," but Mrs. Love assures me that I am wrong, and that the Toronto flower is different. May be so, but they are very similar, and either one is a flower greatly desired in the iris garden.

Nirvana was another Sturtevant to bloom for the first time. It is like Modest Guerin, and seemed not so good as that old kind which has stood the competition of years.

Cretonne, with its intense gold beard against the coppery falls, was very beautiful, and Arelquin perhaps surpassed it in colour, though the size was much less.

Roseway is still the leader in the pinks, and was very fine.

Valery Mayet charmed everyone with the richness of its wine-red shades, and is a variety that must be grown for many years. Mlle. Schwartz has qualities of beauty possessed by no other, and one cannot blame its admirers for saying that there is no finer iris. Zouave is quite near it in general effect, though shorter with me, and on close inspection dotted finely all over. It is an exceedingly beautiful flower.

Lionel Millet might be the parent of Ochracea Cerulea, whose name is changed to the appropriate one of Sunset. Lionel will probably be discarded in 1924.

Goliath gave a large flower on a tall stem, a bicolour with a lot of red purple in the falls, which I described as having buffy-brown standards, and red purple falls, the combination of colours not particularly good. It is easy to introduce

View of Horticultural Section, Royal Fair.

a seedling that is *different*, but different does not mean the same as desirable, a fact that has been overlooked by many originators. In this respect one must pay a tribute to the old firm of Vilmorin, who raise seedlings by the thousand, and for 1923 introduced two, while some others, from a similar or less number, have foisted on the market twenty-five or fifty. When people learn how easy it is to raise their own seedlings and what a fair proportion are interesting, and some of them good, there will be more of them raised, and gardeners will point with pride to their "number eleven, which is nearly as good as Iris King," and each kind will have a sentimental value shared by no boughten kind.

Lilies

Pseudo-tigrinum, now two years old in the garden, showed a strange trait in 1923, in having a three-branched stem, each bearing a number of flowers. The colour is good, and it seems a very desirable lily with a good constitution.

GLADIOLI TRIAL PLOTS AND SHOW AT GUELPH

T. J. Hannigan, Guelph

When the directors of the Gladiolus Society, following the exhibition of 1922 at St. Thomas, decided to hold the 1923 show in Guelph, the Horticultural Society of that city not only recognized and appreciated the honour that had been conferred upon the district, but also realized fully the amount of work involved and the responsibility resting on their shoulders for the success or failure of the show.

The show was held at the Ontario Agricultural College, where a large plot of land was set aside as trial grounds, and the College authorities undertook to prepare and cultivate the land and to plant and look after the gladioli during the season.

The growers responded generously to the request for bulbs for the trial plots, over thirty thousand from all parts of the world being handed over to Prof. A. H. MacLennan in charge of the Horticulture Department at the College.

The land had been well manured and thoroughly cultivated the previous fall, and was again plowed and harrowed in the spring until all lumps were completely pulverized, and then laid out in beds about 20 feet wide by 300 feet long with walks about two feet wide between. These beds were again divided, each grower being given a section sufficient in size for the stock sent and each plot marked with a sign board giving the name and address of the grower and the varieties all properly staked so that visitors could easily get all information.

During the summer months the grounds and flower gardens at the Ontario Agricultural College have for years been a most attractive place for residents of and visitors to Guelph, but during 1923 from the time the first gladioli were in bloom during July until the last flower stalks were cut near the end of September, the trial plots were one unending procession of visitors from early morning until dusk, and never were flower lovers so well repaid.

Early in the spring the various committees were formed and immediately started work—a programme was laid out, prize list prepared, subscriptions solicited and a general campaign of publicity got under way.

A prize list of nearly $1,200 for 89 classes was prepared and sent out to all sections of the country, inviting entries.

Among the many subscriptions special mention is due the cash prize of $100 donated by Mr. J. E. Carter for the best seedling, which was won by Miss Nellie Stockford of Guelph.

Given all the other conditions needed, the success or failure of a show depends largely on the superintendent, and the committee was especially fortunate in securing Prof. Tomlinson for this position. The show exceeded the expectations of the most optimistic members of the committee in entries, number of flowers shown, and in point of attendance, and it was largely due to his knowledge and experience, combined with the unfailing tact and courtesy which he has in such a marked degree, that everything went with a swing.

Too much cannot be said for the work of the Horticultural Department, under direction of Prof. A. MacLennan, for their services in connection with the trial grounds, as not only was every variety given every opportunity and all growers treated exactly alike, but in addition to all the work in the planting, care and cultivation of the gladioli a record was also kept as to the number of days from planting time until bloom, and also as to the value of the different varieties to the flower growers.

The time of blooming is of vital importance to those growing for show purposes, but it must be remembered that the number of days necessary to bloom varies in dry and wet seasons, there being sometimes as much as two weeks difference in the same variety under different conditions.

The marking of the value of the different varieties is particularly useful in test gardens, as there is a marked difference in the same variety from different growers and a variety that has been grown in one kind of soil, on being changed to a different one may not do well the first year owing to changed conditions, this being particularly noticeable with Holland-grown bulbs, which generally take a year to become acclimatized, but which in the trial grounds, while very backward during the first part of the season, later on took a sudden burst of energy and bloomed profusely from the end of August until late in September.

There were over 8,000 flowers—white, pink, red, yellow, blue, purple, and variegated—and the judges had no easy task as there were here the best products of the famous growers and hybridizers, carefully planted, matured and cultivated until the last of them was worthy of a place anywhere, and the winning or losing of the prize depended perhaps on the turn of the petal, a spacing of the flowers, the length of the stalk, or the placing to advantage in the container. I will not attempt to give you a list of the varieties shown or to award honours to certain varieties where all were good, but for the information of those who may wish to know some of the names I will mention a few.

In whites there were Carmen Sylva, White Wonder, Albania, and the old standbyes, White Giant and L'Immaculee.

Pinks—Pink, Wonder-Pink, Perfection, Le Marechal Foch, Mrs. Dr. Norton, E. J. Shaylor, Rose Glory.

Red—Red Emperor, Crimson Glow, Scarlet Princess, Majestic.

Yellow—Golden Measure, Gold, Flora, Orange Glory.

Blue—Mr. Mark, Catherina, Nora, Baron Hulot.

Purple—Purple Glory, Anna Everius, Sydonia.

Mauve or Lavender—Louise, Herada.

Variegated—Byron L. Smith, Mrs. Pendleton, Formosa, Adriatic.

Smoky—Rose Ash, Gen. Botha, London Smoke, Old Smoky.

Prims—Salmon Beauty, Souvenir, Maiden's Blush, Alice Tiplady.

The 1923 show is past and gone, but the 1924 is before us, and the committee is already hard at work to build, with the experience of last year, a still

greater show the coming fall. Offers of prizes and donations are coming in every day. The prize list will be out before planting time, and you can depend that it will be as least as good as last year, and I can promise you, if you come to the Gladioli Show this fall, we will show you more than a million gladioli in bloom, and you will carry home memories that will give you pleasant thoughts for years to come.

HORTICULTURE AS A MEDIUM IN CANADIANIZING THE FOREIGNER.

Mrs. A. L. Potts, Toronto

David Grayson in one of his books says, "If civilization means anything at all it means the increasing ability of men to look through material possessions, through clothing, through differences of speech, colour of skin, and to see the genuine men within."

Lengthy editorials and other articles dealing with the so-called "melting-pot problems" led the members of the Woman Citizens' League of Hamilton to have strong desires to see if something could not be done to secure improved conditions in what is called by some Hamiltonians "the north-end" and by others "the foreign section" of the city. There were naturally obstacles in the way preventing approach, and one of these was the inability to address the residents of this section and make them understand what was desired. It was then that, being at the time the Secretary of the Hamilton Horticultural Society, when asked for an opinion as to the best ways and means, understanding that in countries from which these foreign peoples come the habit prevails of carrying gifts when going visiting, and since it is "the correct thing" even in this to convey floral offerings to friends, at once the reply was, try horticulture as a key. It is "non-political and non-sectarian."

The President of the League 'phoned an appointment to "discuss" this matter, and then Mrs. H. D. Petrie with her vice-president, Mrs. Leeming Carr, went down to the north-end, and, securing the aid of a couple of the children —one a little Polish boy (Casimer Kutt) and a little Italian girl named Cecelia, they went from house to house, interviewing the residents, and then decided to "make an attempt" on two of the streets, viz. Arthur St. and Alpha St., as visions of these and others like them as seen from the windows of the Beach radial cars are far removed from any dreams of beauty.

The League arranged for flower boxes, and the improvement these caused to be made in some cases is revealed somewhat by the camera. That "love of flowers" is present, and that "flowers speak a language all can understand" was evidenced on more than one occasion when a trip down to this section was made with plants or flowers. The members of the local Horticultural Society were asked to co-operate by donating the surplus from their gardens—surplus such as one usually discards and throws on the rubbish heap, but which could be used so often to help in just such places as the homes on the streets named—but only a very few took advantage of the opportunity to help the ladies of the Woman Citizens' League in this way.

Later on Mrs. Petrie and her organization formed the children into a club for the purpose of studying matters of Canadian interest. It will be better to quote from the printed report in one of the local papers. "In connection with, and widening the Canadianization work undertaken by the Woman Citizens' League, a committee of its members visited the east part of the city

on Saturday afternoon (January 9th, 1922) where they were met by a band of twenty girls, anxious to participate in some form of club work, Canadian in nature. Bright and intelligent were these 'teen age girls and their younger sisters, all eager to do something. Plans were quickly formed, the girls expressing preferences and offering suggestions. After discussion, a club, to be called the

Before Cleaning Up, Foreigners' Section, Hamilton.

Beginning to Catch the Spirit of Improvement.

Young Canadians Club, was formed. In June the local papers reported that the annual picnic of this club had been held, and encouraging reports of the growth and attention being paid to the flower seeds planted in the spring, which were later inspected by the patronesses of the club. A prize will be given for the best kept garden."

Mrs. Petrie arranged to have talks, not only on horticultural subjects, given to these little foreign children, but secured the aid of Mr. Petrie, and Mr. Kerr, the Principal of one of the public schools, to speak on matters of historical interest, and later took the prize winners in the Essay Writing Contest (essays on what they remembered of the subjects of these "talks") on a visit to the famous places around Niagara Falls, and also rewarded the industrious members of this club by bringing a bus load down to the Canadian National Exhibition on "Children's Day" that they too might catch "the Canadian spirit" and having caught the vision they might return home to become better citizens in the coming years.

Sir Philip Gibbs somewhere in his books wrote as follows: "The United States received these foreigners (i.e. from all the countries of Europe) in hundreds of thousands and became 'the melting-pot' of races. The melting process, however, was not so rapid as some people imagined, and it was something of a shock to the States to discover a few years before the war, and with a deeper realization at the outbreak of war, that they had within their boundaries enormous populations of foreign-born citizens, Germans, Poles, Slavs of all kinds, Italians and Austrians, *who had not assimilated American ideas but kept their speech, customs and national sentiment.* It was a vast foreign element which had to be converted to the American outlook upon the world tragedy which opened in August, 1914. This mass of hostile or unwilling people had to be dragged into action when America found that her isolation was broken, that she could no longer stand aloof from the rest of mankind, nor be indifferent to the fate of friendly nations menaced with destruction, nor endure a series of outrages

which flouted her own power, nor risk the world supremacy of a military autocracy, which, if triumphant in Europe, would very soon dictate to the United States."

I think it was David Grayson who, when writing *re* a Polish neighbour, said, "The reason why we are so suspicious of the foreigners in our cities is that they are crowded together in such vast, unknown, undigested masses; we have swallowed them too fast, and we suffer from a sort of national dyspepsia." This sketch is to show where, at one crowded point, an organization did try to administer a dose to neutralize a little of the unpleasant results of this failure to be "assimilated," and horticulture was the thing which made approach possible, and, as is usual, it did produce some results, and more might have been accomplished if the co-operation asked for had been forthcoming. If the "little leaven leaveneth the whole" as we are instructed it does, then this effort on the part of the earnest workers of our League does not and cannot end here, and should not, if Canada is to be saved from the bad attack of "dyspepsia" obviously pending.

REPORTS OF DISTRICT DIRECTORS

District 3.—W. P. Bailey, Fort William, Director

Fort William.—This society, the premier one in District No. 3, continues to prosper and grow. An increase of 70 members is recorded for 1923, the total being 1,090. We have had a big problem to contend with in that a big percentage of our members are "vacant lot gardeners," and as our city grows we are faced with the necessity of discontinuing the vacant lot gardens and converting the gardeners to horticulturist members. In this we have been fairly successful and are eliminating the former gradually.

During 1923, in our list of premiums, we specialized in pæonies, dahlias and gladioli, and have been consistent in our endeavour to supply our members with the best premiums obtainable. The good results are already in evidence, and our requirement for 1924 includes a greatly increased quantity of these three flowers.

We have continued our policy of beautifying some of the vacant property in the business district and in 1923 undertook three large gardens in the centre of the city. These received favourable comment from both residents and visitors, and the credit for these beauty spots must be shared with our local Parks Board, who co-operated with us to no small extent. With their help we have found the expense of maintaining these gardens so reasonable that we hope to extend our scope in 1924.

The flower show, held in the middle of August in the Prince of Wales Rink, was again a gratifying success, both as to number of entries and quality of bloom, and the attendance was well over 2,000. This exhibition has developed into one of the premier summer attractions at the head of the lakes and has been an advertising medium of no small moment to our city, for it is visited by numbers of tourists from far and near.

We were fortunate in being able to obtain as our judge Prof. J. S. McGiffin, who has been associated with the Department of Horticulture at both Ottawa and Guelph, and wish to take this opportunity of expressing our appreciation of his work, and for the many pointers he so kindly gave to our exhibitors.

Port Arthur.—This society has just finished its first year, with a membership of 104 and a most creditable financial balance of $554.87. During the latter

part of August it held a flower and vegetable show, the exhibits totalling 223, which was a distinct success. Prize monies to the sum of $148 were distributed. The society beautified a vacant plot in the centre of the city and its endeavours are having a marked effect in awakening interest in horticulture amongst Port Arthur citizens.

Sudbury.—An increase in membership from 132 in 1922 to 158 in 1923 is a measure of the advance made by this society, and its efforts have resulted in a marked improvement in the general appearance of lawns and gardens in the town. Window boxes were maintained in some of the public buildings and a number of trees donated to the Parks Commission. On August 29th and 30th the second annual flower show was held, there being displayed 190 entries of flowers, 5 of fruit and 110 of vegetables, besides 16 gardens entered in the garden competition. This society is endeavouring to double its membership in 1924.

Barrie.—One of the most successful organizations in District No. 3 is the Barrie Horticultural and Town Improvement Society, and the results achieved by it in 1923 are in keeping with the enthusiasm always displayed by its members. The growing season was not as favourable as it might have been, but, despite this handicap, the society held a very successful exhibition, with over 400 exhibits on display. Gladioli continue to be their big feature and some wonderful blooms were shown. Prof. A. H. Tomlinson, of the Ontario Agricultural College, Guelph, judged the exhibits and congratulated the society on the splendid results which it attained.

Sturgeon Falls.—Miss Richardson reports 121 members for 1923 as against 79 in 1922. On May 11th a lantern slide lecture was given, which was very successful and stimulated the residents of Sturgeon Falls to greater interest in their gardens. A flower show was held on September 1st, at which $37 was awarded in prizes. The society spent $120.50 in 1923 for shrubs, seeds and plants, and is to be commended for including a goodly portion of permanent shrubbery in its premium distribution.

Haileybury, New Liskeard, Temiskaming, Thessalon, Iroquois Falls, North Bay.—The North Country was very badly disorganized by the fire which swept over some of these localities, but that the people of the North are coming back stronger than ever is shown by the attendance at the convention of representatives from practically all these centres, Richard Whorley, John McFarlane, C. A. Byam, and others. As the devastated towns are rebuilt, more care is being given to their appearance, and the societies are earnest in their endeavours to make these northern points pleasing to the eye and a joy to the inhabitants.

Creemore, Midland, Tottenham, Orillia.—These societies continue their activity and each sent representatives to the 1924 convention. Experience has proven the desirability of redistributing District No. 3 because of its vast size, and the convention this year was pleased to alter the boundaries of the different districts so that these towns are now incorporated with districts whose headquarters are nearer home, and more attention can now be paid them, with, we hope, improved results and increased interest in horticultural pursuits. What is commonly known as the "Cobalt Country" has also been constituted a new district, with a director on the Ontario Horticultural Association's Board of Directors.

District 5.—Rev. George W. Tebbs, Burlington, Director

The increasing membership of the societies in this district and the popularity

of civic beautification carried out by the officers of our societies in the district are special features of the past year's work.

Enthusiasm, backed up by work faithfully performed, has put the horticultural societies in the Niagara peninsula on the map and people are wondering how they failed to appreciate the aims of the societies in years gone by, as they now see what has been accomplished. Your director has visited many of the societies of the district during the year, delivering illustrated lectures and judging at flower shows and garden competitions, and by letter has asked for some report of work specially undertaken this past year.

Acton.—Has distributed 1,000 gladioli, 1,000 tulips, 200 packets of sweet peas, 1,000 boxes of various plants, 300 geraniums. Has decorated the Soldier's Monument by two plantings, and has kept the same in good shape, cutting the grass around it, etc. A special feature of this society was the purchasing of geraniums wholesale and distributing them to the members at cost. The storekeepers and gardeners who at first strongly opposed this now say that it has created an interest in floriculture from which they themselves are now benefiting in a demand for a higher class of plants and bulbs. Acton is one of the beauty spots of Ontario.

Beamsville.—Now has a membership of 146, an increase of twenty-five. Held two exhibitions. Maintained two public flower plots and purchased an electric light standard. Each member received the "Canadian Horticulturist," and two premiums.

Bridgeburg.—Has a membership of 250. The co-operation of the citizens in the work of the society is a marked feature. Fifty shade trees have been planted on the public streets, principally around the churches. The trees have been staked, and labelled "Bridgeburg Horticultural Society." The society suggested to the School Board the planting of shrubbery around the schools. Flower beds in the cemetery were also suggested by them to the Cemetery Board, as well as flower beds at the bowling green. All these suggestions have been carried out. The stock was ordered by the society, and paid by the boards. Mr. H. J. Moore prepared a planting plan for the new municipal building grounds, the stock was ordered, planted, and the town council paid the bill. A vacant lot was cleaned up and shrubbery planted by the society, and two public beds also planted. Through the instrumentality of the society a public spirited man has offered to plant a perennial border adjacent to the new municipal building, and has asked the society to order the plants. Some 3,000 gladioli bulbs were distributed in the spring, and in the fall an order placed for 9,000 flowering shrubs and 200 pæony roots. Snapdragon seed was distributed to all public school pupils.

Burlington.—The members of this society were willing to forego any fall premium in order that the money might be spent on civic beautification on the lake shore, and on the grounds surrounding the radial station. The work accomplished will be seen in the slides to be shown at the convention when your director opens the discussion of the secretary's report. Several streets in the town have been paved during the past year, and the society received the earth excavated therefrom and has filled in the lake bank where necessary and grass seed has been sown. The whole of the lake bank has now been cleaned up, and is greatly admired by the public passing on the Toronto-Hamilton Highway. Flower shows were held in the spring at tulip and pæony time. A large exhibition was held on the lake front during the summer. Shrubs and perennials and flower beds have been planted in the Radial Station Park. Gladioli bulbs were distributed to members in the spring. Lectures on horticulture were given at

intervals to the citizens, and the society shows an increased membership. A campaign for membership will be inaugurated this spring.

Delhi.—A membership of eighty-four with total receipts of $473.79. Beautification of the school grounds has been undertaken. New wire fence erected in the park and beds planted. Shrubbery planted at the railway station. Flower show held, and premiums given of shrubs, plants and bulbs. A play was given in the fall, the proceeds of which went to the work of the society.

Grimsby.—Membership increased to 253. The principal features of the year's work were ten monthly meetings for flower exhibition and discussions; three lectures; annual flower show; first garden competition; maintenance of public flower beds; 3,000 gladioli, 3,000 tulips, and 600 narcissus bulbs distributed to members.

Hamilton.—Membership 1,200, an increase of 400 for the year. Six hundred new members. This is the largest membership in the history of the society. Held four large flower shows in tulip, iris, rose-pæony and autumn flowers. The society is co-operating with the parks board for the formation of a large rose garden in Gage Park, to be laid out, and 2,500 roses will be planted this year. Horticultural reading strongly advocated to the members. The society condemned the wholesale slaughtering of Christmas trees in the Province for the American trade.

Milton.—Membership over 200, and a successful year's work reported. Will hold a flower show this year.

St. Catharines.—Membership 1,041. The June and September shows were quite up to the mark and well attended. The school children were a feature of the June show in fancy drills, etc. In the September show the school children paraded in fancy costumes representing flowers, fruit, and vegetables, for which special prizes were awarded. As a society a membership was taken in the Rose Society of Ontario and also in the Canadian Gladiolus Society.

A long overdue testimonial was presented to Mr. C. A. Hesson for long and faithful services. The society sustained a heavy loss in the death of Mr. E. Gander and Mr. John Cameron. The society desires to draw the attention of the convention to the value of a copy of the annual report being sent to each family where there is a member of the society. The financial statement shows receipts of $2,796.50.

Simcoe.—Reorganized in 1922 with a membership of 100. This year there is a membership of 325. Lectures have been given dealing with problems of civic improvement and beautification. Permanent planting in parks and boulevards has been undertaken, and a flower show held in September, especially of gladioli, asters and dahlias which was very creditable.

Welland.—Membership of 292 an increase over previous year. Receipts, $629.24. At rose show held in June every available space was occupied with exhibits. In September another show was held of flowers and vegetables which exceeded all the expectations of the officers. The garden competitions were keenly contested, a larger number of entries being received than previously. Premiums of roses, flowering shrubs, gladioli and strawberry plants were distributed. Lectures were given during the year, The Y.W.C.A. grounds have been looked after by the society. Great interest has been aroused in the work of the society, and as a result home surroundings have been much improved.

The Canadian National Railway, through the solicitation of the society, is improving the railway station property. A membership campaign is under way.

Caledonia.—A new society with a present membership of eighty. During the first year has graded and seeded a V-shaped park on the south side of the Grand River, and has also made and planted two public flower beds. Has put in about 800 tulips this fall for the town, and has sold several thousand bulbs to the townspeople at cost.

Smithville.—Has had a very successful year both financially and in membership. Distributed roses, shrubs, etc., to members. Had a garden competition. Held lectures on horticulture, and finished the year with a balance of $73.90.

Georgetown.—Plot near the radial station, planted and maintained, and others also cared for in different parts of the town. The Society provided all the plants for these beds. Held a flower show in September, which was very successful. School children were given asters and dahlias to care for. Has a membership of 111.

Dundas.—Many civic improvements have been undertaken during the past year including the Memorial Square, Old Union Cemetery, Armoury Grounds and Town Hall Gore. Flower beds, shrubs and trees have also been planted. The juvenile branch of the society has a membership of 200 children, the principal of the public school, Mr. W. F. Moore, taking great interest in the work. Receipts amounted to $1,589.63.

District No. 6—Wm. Hartry, Seaforth, Director

District No. 6 comprises Huron, Grey and Bruce, with twenty societies, and over 3,000 members, and an expenditure of $9,000 in 1923. Have had on the whole a very successful year.

Splendid reports comes from the new societies at Exeter, Kippen and Teeswater. We added two new societies last year, and both doing good work.

We are looking forward to a prosperous year.

District No. 7—W. O. Mendell, Director

This district consists of the counties of Wellington, Waterloo and Brant, with twenty-six societies, and a total membership of nearly 7,500, or over one-seventh of the total membership in Ontario. There has been an increase of over 1,300 members. Foremost in this increase are the societies at Galt and Guelph, the former with 419 and the latter with 348, but nearly every society shows healthy progress, and they all are of great benefit to the communities. A splendid district pæony show was held in Kitchener, and was so very successful that it was decided to make this an annual affair, the 1924 show to be held in Brantford in June.

Nearly every society held a flower and vegetable show. They were of outstanding interest, and the greatly increased space needed for these exhibitions, the larger number of entries as well as the high qualities of the exhibits, are an eloquent testimony to the good work done by the officers and directors.

Guelph held the centre of the stage with the second show of the Canadian Gladiolus Society, which was an international affair.

But of special mention is the civic improvement work done by the societies. Nearly every one maintains beds and boxes, and this proves a great educational factor in the different places. Brantford has already made great strides in this direction, while Galt with its pæony trial ground containing already nearly 400 varieties valued at over $2,600 is not a whit behind. Guelph, the Royal City, is rapidly forging to the foreground but every society Kitchener, Waterloo, Preston, Hespeler, New Hamburg and Elora and every town and village have taken up this work.

The future of this district is bright with possibilities but only as we co-operate together can we achieve the best.

The convention then adjourned to accept the hospitality of Lady Eaton, and inspect her greenhouses.

Ontario Department of Agriculture

TWENTY-THIRD ANNUAL REPORT

OF

The Agricultural Societies

AND OF THE CONVENTION OF THE

Association of Fairs and Exhibitions

FOR THE YEAR

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
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1923

PRODUCED BY
The
United Press
LIMITED
TORONTO
CANADA

To His Honour HENRY COCKSHUTT,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the pleasure to present herewith for the consideration of your Honour the Report of the Agricultural Societies of Ontario for the year 1923.

Respectfully yours,

JOHN S. MARTIN,
Minister of Agriculture.

Toronto, 1923.

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ANNUAL REPORT

OF THE

Agricultural Societies of Ontario

1923

To the Honourable John S. Martin,
Minister of Agriculture.

Sir,—The Annual Convention of the Ontario Association of Fairs and Exhibitions was held in Toronto on January 30th and 31st, 1923. This twenty-third Annual Report of the Agricultural Societies of Ontario contains a synopsis of the proceedings, which will prove of value to the officers and directors of the several hundred Branches in the Province. The Convention of 1923 was the largest and most enthusiastic ever held by this progressive Association.

Faithfully yours,

J. Lockie Wilson,
Superintendent.

OFFICERS FOR 1923

President.....Jas. F. Ault, Winchester.
1st Vice-President.....A. R. G. Smith, New Hamburg.
2nd Vice-President.....Jas. McLean, Richmond Hill.
Secretary and Editor.....J. Lockie Wilson, Toronto.
Treasurer.....J. E. Peart, Hamilton.
Auditor.....G. de W. Green, Toronto.

Directors.

District No. 1.....Dr. T. A. Morrow, Maxville.
" " 2.....J. N. Smith, Parham.
" " 3.....T. A. Neal, Marmora.
" " 4.....Jno. E. Roxburgh, Norwood.
" " 5.....Douglas McArthur, Collingwood R.R.1.
" " 6.....R. C. Rubel, Merritton.
" " 7.....W. S. West, Woodstock.
" " 8.....Edward Douglas, Ilderton.
" " 9.....R. A. Smith, Leamington.
" " 10.....Allan Findlay, Chatsworth.
" " 11.....Chas. White, Emsdale.
" " 12.....E. T. Ross, Kenora; John McFarlane, New Liskeard and Wm. Vincer, Jr., Mindemoya.

Representative to Western Fair.....John Farrell, Forest.
" " *Central Canada Exhibition*.....Jas. F. Ault, Winchester.
" " *Royal Agricultural Winter Fair*...Jas. F. Ault, Winchester; L. J. C. Bull, Brampton, and Jas. McLean, Richmond Hill.

FINANCIAL STATEMENT

January 1st to December 31st, 1922

Receipts.

Balance from 1921	$715 54
Return of $25.00, Passenger Assn	25 00
Memberships, 300 at $2.00	600 00
Exchange added to cheques	4 55
Bank Interest	15 35
	$1,360 44

Expenditure.

Exchange on cheques	$ 6 60	Directors' expenses	$303 35
Cheque to Passenger Assn	25 00	Typewriting	4 15
Treasurer's Bond	5 00	Assistants	50 00
Banquet Expenses	35 50	Postage	7 00
Printing	70 20	Honorariums to Officers	225 00
Auditor	5 00	Balance on hand	623 64
			$1,360 44

Audited and found correct,
January 30, 1923.

G. de W. Green,
Auditor.

Ontario Association of Fairs and Exhibitions

ANNUAL CONVENTION

The Ontario Association of Fairs and Exhibitions held its twenty-third Annual Convention in the King Edward Hotel, Toronto, on Tuesday and Wednesday, January 30th and 31st, 1923. Each year a larger representation of delegates is in attendance, and Societies are beginning to realize the benefits accruing from an interchange of ideas in newer lines of educational work.

PRESIDENT'S ADDRESS.

JOHN FARRELL, Forest.

On behalf of our Association, I extend to you all a cordial welcome. I feel somewhat timid when I look over the splendid record of the pioneers of this Association, it being nearly a quarter of a century since its organization, and during all those years the ups and downs that are bound to come to all well organized Societies have been met cheerfully and enthusiastically, and those engaged have been wonderfully successful.

We feel we owe a deep debt of gratitude to those who have gone before us, the organizers of this work—seeing that these societies are scattered from one end of the Province to the other, struggling individually, and their work was so laborious and so spread, that they felt some other means would have to be taken in order that the best results might be attained, and the only thing that would meet the situation was co-operation through a central Association. They met and organized and brought into existence the Association that is here to-day, and the delegates will give an account of the work accomplished during the year closed. The Constitution was carefully passed on by those in charge.

I will refer briefly to some of the good work that has been accomplished in the past which has helped us to keep up our splendid record. We have succeeded in bringing together the very best possible minds that are known in this country, and their assemblage and interchange of opinion has been the means of advancing our interests.

Through the efforts of our Association a Departmental Judge system was established. They are not being accepted generally throughout the Province to-day, neither were they in the beginning. There were many people somewhat averse to that organization undertaking its work, but it is quite true to-day that the major portion of the Agricultural Societies of the Province of Ontario have accepted it. Why? Not because in their own immediate vicinity they did not have judges with as fair judgment as the men that were able to be sent to them. That is not the question. In many cases the judges in our own immediate vicinity were quite equal, and in some cases excelled some of the men that have been sent into your districts. But we know from past experience that jealousies are liable to creep in occasionally, and when your neighbour has splendid stock to put on exhibition and another neighbour is asked to judge it, even if he does it to the best of his ability, there is liable to be unpleasantness. To avoid that the Department has undertaken to select capable men from other districts, unknown to the exhibitors of that particular locality.

I have here a report from some of the other Provinces which will be of interest to you. Manitoba has 73 Societies and they get a Government grant of $39,232 for holding Exhibitions and $8,787 for membership, and in addition Brandon gets a grant of $10,000, a grand total of $58,019 for 74 Societies. In Ontario we have over 360 organized Societies in existence, and the total grants, outside of the special grants, which I am not taking into consideration, amount to $85,000. And in addition there is $10,000 of wet weather insurance. Now fancy—there are 360 Societies with a grant of $95,000 in this banner Province as compared to $58,019 for 74 Societies in the Province of Manitoba.

In Saskatchewan grants to Agricultural Societies in 1921-22, exclusive of grants for seed fairs and crop competitions and exclusive of grants which are recouped by the Dominion Government, were $11,824.86. Grants given are 50% of expenditure, and there is also a grant of 25 cents per member, with a maximum of $100.

The last fair I attended was Stratford. Many of the officers were not conscious I was there. I did not go there as a guest, but for information. I did not allow any officer or director to accompany me. I said, "If I cannot find your exhibits there is something wrong." And when I left the grounds there had not been a man hindered because I was there.

I believe that the duties of every officer on the day of their fair are not to entertain guests from the outside, but to extend that welcome to every man and every woman in their vicinity; and in doing that, every officer and director does his part.

Controller Gibbons, Toronto, welcomed the Convention to Toronto. He said that a gratifying feature in connection with fairs and exhibitions was that much of the time, thought and labour devoted to them was unpaid, being given freely and voluntarily, and prompted by a praiseworthy and self-sacrificing public spirit. Long may this continue.

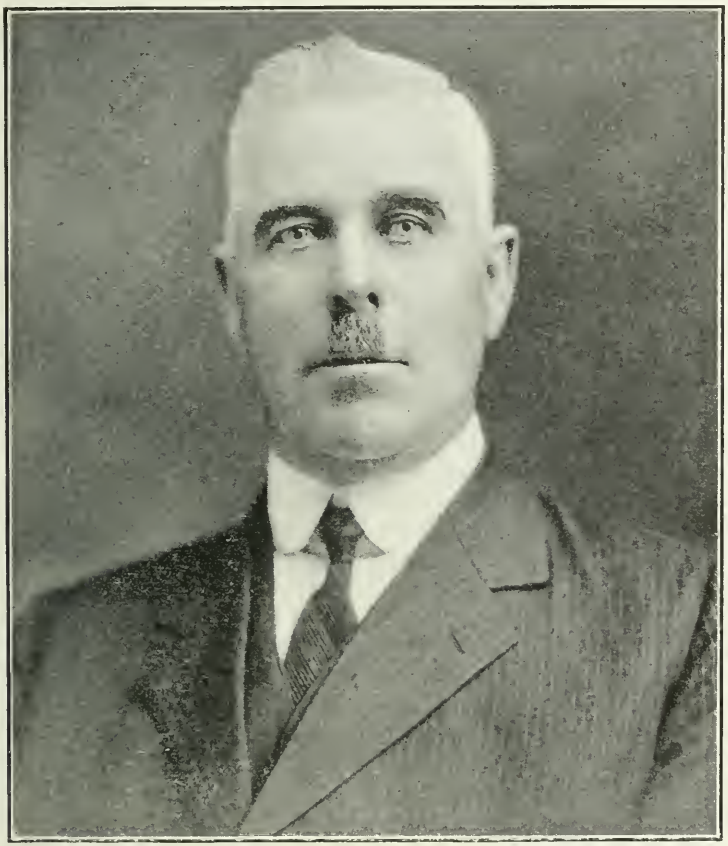
A. R. G. Smith, New Hamburg: The President's address dealt with some very interesting subjects. The vital matter for us is to have the confidence of the public in our work. Our Agricultural Societies are expanding in their work year by year, and have yet a great way to go before they have accomplished anything like what they would like to, as educational mediums in the community. It is rather interesting, also, to note the opinion expressed here this morning that in many cases we should not judge our Agricultural Societies' work by their balances. I think that the Agricultural Societies of Britain have done wonderful work, because they have made Great Britain the Live Stock centre of the world, and we are judging the Agricultural Societies of Britain by the work that they did rather than by their balance on hand.

I agree with the President when he refers to the necessity of more organization to secure larger Municipal and Government grants. I would suggest that the Executive body of the Fairs Association should secure the necessary information, and that we visit the various County Councils throughout this Province to secure larger grants. We feel that the men of influence, if they had the matter properly presented to them, as your President has said, would give larger contributions than ever if they have the details placed before them.

I wonder if we are paying enough attention to the Agricultural Societies' Act? I was rather interested to find in one of our prominent Farm periodicals last year the various clauses of the Agricultural Societies' Act, which I commend for your consideration. Representatives were asked to reply as to what particular kind of work had been carried out by that Agricultural Society. I speak advisedly when I say it is advisable not to divert our work from the Agricultural

and educational side to too much entertainment. In many cases the midway occupies too large a place in the Agricultural fair.

The School Fairs have been a pronounced success. I think it was Sir Walter Scott who once said that people who had been taught their religion through sport were apt to make sport of religion. What we are pleased to call public opinion calls sometimes for a good deal that is not very lasting in its benefits. We have a lot to learn from other countries. Why is it that Denmark is so prominent in the world with her bacon? Why was it necessary for Aaron Shapiro to come from California into this Province of Ontario? It was necessary that he should come here, not only along the line of production but on the question of the marketing of our products.



J. F. Ault, Winchester.
President, Ontario Association of Fairs and Exhibitions.

I think that your President was perfectly correct when he said that we should emphasize the importance of getting more Government grants, but I would like to draw your attention to the fact that we cannot expect anything from Governments or County Councils, unless as a body we command their respect and go in a body to ask for those grants.

J. E. Peart, of Hamilton, presented the Treasurer's Report for the past year, which will be found on page 6.

Moved by W. J. Connelly, seconded by Dr. W. F. Clark, Goderich, that the Treasurer's Report be received and printed in the Annual Report. Carried.

The President announced that the President, the Vice-President and the Secretary constitute the Committee to deal with questions.

The following were appointed on Committees:—

Seed Committee: A. R. G. Smith, New Hamburg; James McLean, Richmond Hill; C. W. Molland, Thorndale.

Resolutions Committee: Jas. F. Ault, Winchester; A. R. G. Smith, New Hamburg.

REPORT OF THE SUPERINTENDENT.

J. Lockie Wilson, Toronto.

The Agricultural Societies of Ontario have reason to be particularly proud of the record made in 1922 in connection with two of their prominent lines of work, viz., Fall Fairs and Field Crop Competitions. Never before in their long period of upwards of a century have they shown such advancement as in the year just closed. Weather conditions were, generally, ideal during the period when fairs and exhibitions were being held, and, as a consequence, exhibits were numerous, of high standard, and the attendance in nearly every case highly satisfactory. Crowds thronged the grounds and the farmer and his family took apparently the greatest possible interest in viewing and watching the judging of the live stock and agricultural products raised in our Banner Province. Wet Weather Grants amounted to $6,632.00. Rapid strides are being made in the replacing of inferior breeding animals with those of tested records, the ancestors of which have been tried, proved and not found wanting. The accredited herd system, too, is proving of great educational value to those engaged in this progressive work. For the elimination of scrub animals in Ontario herds much credit is due to officials of the Ontario Department of Agriculture in co-operation with those of the Federal Government. The Better Bull Campaign deserves the hearty co-operation of those interested in the improvement of our herds. The removal of the embargo by the British Government will not prove of the highest value unless our stockmen do their part in sending to that market animals of the best beef type only, and it is up to you, who have charge of the several hundred fairs in this Province, to adjust your prize money and prize lists to further the ends we all have in view. Better stock and better markets mean a more prosperous farming community.

At times when feed is scarce and dear, owing to a failure in crops, it may be a feasible proposition to ship our stock to Great Britain in an unfinished state, but I am strongly of the opinion that when feed is plentiful, as it is at present, and stockers reasonable in price, it would be better to have our shipments go to the British market ready to be turned into beef on arrival. Owing to the high cost of transportation it does not seem to me a good plan to ship two classes of raw products in the shape of grain and lean cattle. Every train load and ship load of grain sent out of this country means the impoverishing of our lands, and the carrying companies charge no more per cwt. for transportation of finished animals than they do of lean. This question should receive the serious consideration of our stockmen.

You are giving much encouragement, more I may say than ever before, to farm boys through school fairs, when held in conjunction with your exhibitions. See to it that the prizes given in this class are indeed worth while. For, after all, the hope of the future of our country lies in the youth that gather round the farm homes of Canada. In the suggested remodelling of your prize lists please keep in mind our farmers in embryo.

The exhibit of horses at the Fairs last fall was one of the best we have ever had and marked improvement has been shown in the cattle, sheep and swine. The Poultry departments, too, were well filled with birds of the finest utility breeds.

It is sometimes stated that we have too many fairs. There may be instances where on account of lack of interest in the surrounding community and an inefficient Board of Directors a fair may languish and should pass out, but these are exceptions to conditions that generally prevail. An Agricultural Fair be it ever so small, if run largely on educational lines must prove of some value to the neighbourhood in which it is held, and some young farmer who wins a prize thereat may take heart again and strive for better things and be found in after years winning coveted trophies at the Canadian National and the Royal Show, the two great clearing houses where finest flocks and herds foregather.

Judges.

Several hundred judges each year are sent out by our Department, whose duty it is to fix the standards for future fairs, and the short courses for Departmental Judges have in the past done good work in this regard. The District Representatives, through short courses held in the different townships, are doing an excellent educational work in preparing young farmers to take their places as judges in the show rings of Canada, and you can do no better work at your local fairs than to offer substantial prizes for young stockmen who show their ability in placing prize winners, and whose services you will doubtless require, and must have, in the not distant future. Many of our judges have reached the three-score mark, and will inevitably soon cease from their labours, and the course of wisdom is to prepare for the passing of these stalwart men who have done so much for the cause we have at heart. My report last year intimated that the time would soon come when certificates would be issued by a qualified Board of Examiners to the judges employed by the Department. Is that time not near at hand when that system will be adopted? I would like to have your views on this proposition. Following the usual custom short courses for Departmental Judges will probably be held in the early part of July.

It is, perhaps, unnecessary at this time to lay down rules that should govern the work of Departmental Judges, some of whom know their duties thoroughly, others rather indifferently, and a very small proportion far from what we might all expect; but there are a few fundamental rules that should be clear in the minds of those men who occupy such important official positions. On arriving at the headquarters of a fair the judges should immediately report to the Secretary and get from him the necessary books and the time at which the different classes will be judged. After securing these he should not be any more in evidence than is really necessary until he walks into the judging ring. He should be particularly careful not to have any intercourse with exhibitors of the animals which he is there to judge, and should keep away from the horse and cattle barns and should examine none of the stock until they are brought into the ring, and particularly avoid having any conversation with Directors who are exhibitors. He should be in the ring before the exhibits are brought in. He

would then be in a position to start sizing up the animals as they are being led in, and he should have no conversation with the Director in charge while performing his duties, for he alone is responsible to the exhibitors and interested spectators at the ring side. Much dissatisfaction has occurred when the judge's decision is long delayed and there seems to be a doubt in his mind as to the order of his placings. The officer in charge should see that immediately a class is judged the next one is brought promptly into the ring. Time is the essence of the contract for both officers and spectators, and long delays interfere with success. In arranging the judging programme a time should be set when each class will be judged, and those in charge of stock ought to be ready at the gate when their turn comes. If an exhibitor feels that the judgment has not been fair to him he has a right to ask the judge the reason for his award. This should be done briefly and courteously, and the judge should avoid heated arguments with disappointed exhibitors. I have dealt with this judging proposition because of the fact that there are many judges at this convention, and you are all interested in having their work fairly and honestly done. It has been reported to me that exhibitors, particularly in the stallion classes, have offered sums of money to judges to give special consideration to their animals when their class is being judged, and on being asked if they had reported this promptly to the Secretary or President, they stated that they had not. For the honour and credit of all concerned this should have been promptly done, and these would-be bribers debarred from again exhibiting at any agricultural fair, for a time at least. These offers, doubtless, were the result of judges holding conversations with exhibitors previous to their going into the ring. We expect our judges to be like Caesar's wife, above suspicion.

Standing Field Crop Competitions.

Second only to Fairs and Exhibitions in their great value to the Societies which conduct them are the Standing Field Crop Competitions, which have now become firmly established among nearly half the Agricultural Societies of the Province since the time when they were organized, fifteen years ago, on a very small scale. They have been the means of bringing into the pockets of Ontario farmers hundreds of thousands of dollars, and their value to the Province and the Dominion in connection with the production and supplying of first-class seed grain and potatoes is inestimable. The Combined Standing Field Crop and Threshed Grain Competitions, organized in 1921, go a step farther than the Regular ones, inasmuch as much larger prizes are offered, the grain and potatoes are judged in the bin as well as in the field and the prizes are awarded on the basis of 60% of the Field score and 40% of the score in the bin, and the grain which ranks sufficiently high is given a certificate of registration and the potatoes certified to. An increasing number of Societies took advantage of the Combined Competitions in 1922 as compared with the year previous. This line of work will continue to grow, and through them in the near future Ontario will take the lead as the greatest seed centre.

One of the difficulties the competitors in the Field Crop Competitions are meeting is lack of machinery for the thorough cleaning of the grain that is to be utilized for seed. The Quebec Government, I understand, have taken steps to assist in establishing seed cleaning centres where machinery is provided for efficient work in this connection. Ontario cannot afford to take second place to the sister province in this regard.

Complaint was made to me last year that there was considerable delay in the testing of samples of the grain by officials of the Dominion Seed Branch.

This trouble was due to the staff being undermanned; but this, I understand, has been remedied, and the results will be issued more promptly this season. A total of 289 crops were entered in the competitions during 1922.

The rules and regulations of the Regular Field Crop Competitions require that a minimum of ten farmers must enter, and in the Combined fifteen at least, and these are the number of fields that must be judged before grants are given.

Apparently, it has been the practice of some Secretaries to put on the list the names of men to make up the minimum number, without the consent of same, and the Field Crop Judges sometimes have driven to a man's farm only to discover that he had never regularly made entry, thus causing unnecessary expense to the Department and delaying the judge in his work.

When a Society makes entry in the Regular Crop Competition there must be not less than ten bona fide entries, and these must remain in the Competition to the end and have their fields scored. It would be advisable for the Secretary to have more entries than ten, because as the result of drought, hail or heavy rain storms, fields of grain that would otherwise have scored high are often times beaten down or checked in growth and are unfit to be judged. Secretaries should keep in touch with all the competitors in their Societies and notify me promptly when a man wishes to drop out for satisfactory reasons. This will not only save money for the Department but will expedite the judging of the crops.

It is also the duty of the Secretary to notify me in good time when crops are ready to be judged, and this cannot be done unless he keeps in close touch with the competitors from time to time and finds out how the crops are maturing. It is a frequent occurrence for my office to receive a telegram or phone message, "Send judge at once; crops dead ripe; cutting commenced." As it sometimes takes a little while to secure a judge, as the one designated for that Society may be unable to go at once, delay is caused, and when a judge finally arrives he finds that some of the competitors, in despair of the judge arriving in time, have cut their crops, and, as a crop cut cannot be compared with one growing, their fields had to be dropped out of the competition, some of which would otherwise have been among the list of winners. At least three days' notice should be given when you require the judge to come and a week would be better. If this is done greater satisfaction will be given. Many farmers who have entered the Combined Competition have failed to have the required quantity of the grain in the bin thoroughly cleaned. This is surely worth while when you consider the large amount of prize money offered by the Federal and Provincial Governments.

Only three counties in the Province were not represented in the Field Crop Competitions last year, Haldimand, Haliburton and Stormont. Parry Sound and Muskoka made a better showing than many counties in older Ontario, the former having in the competitions 11 Societies out of 14. The standing of Grey, Middlesex and Bruce is 18, 13 and 10 respectively. Hastings, Kent and Peterborough are next in order with 9 each. Another creditable feature as regards Parry Sound and Muskoka is that with one exception all the Societies in those two districts made entry in two crops.

The exhibits at the Canadian National, Central Canada, Guelph and Ottawa Winter Fairs and the Royal Show were the best ever put up at these Exhibitions. Only one bag of grain containing wild oats was sent to Guelph, and this was promptly returned to the exhibitor.

The Federal Department of Agriculture intends bringing in an Act with respect to the testing, inspection and sale of seeds. This is an important piece

of legislation, and is of interest to all our Societies, and I would suggest that a Committee from this Convention be appointed to report on same and bring in a recommendation, and it will be for you to approve of or make suggestions for same. Much seed grain has been placed on the market under high sounding names, as our Field Crop men well know, which did not prove of much value. In order to produce the best crops we must be in a position to secure pure seed, and this Act in my judgment is of value in that regard. If this Act is passed it will take the place of those in force at the present time.

Another matter that should receive the attention of this Convention is the fact that many of our farmers have purchased fruit trees, and, after caring for them for a number of years, only when they came into bearing did they discover that they were not the varieties that they had ordered. This you will agree with me is a much more serious offence than the selling of seed grain that did not prove to be as recommended. Grain that proved unsatisfactory for

A section of the Grain Exhibit at the Royal Agricultural Winter Fair, 1922.

seed would be of some value as feed, but apple or other fruit trees take so long to mature that the great loss cannot very well be estimated. Our members should deal only with responsible nursery men of the highest repute, and a stringent Act should be passed to meet this, to say the least of it, criminal offence.

At your Convention held last February a number of the delegates voiced their opinion that there should be a change made in the dates of the Annual Meetings and also in the hours for holding same. The following resolution was passed which was unanimously approved. "That the date for holding the Annual Meeting be between the first and twentieth days of January, inclusive, and the hour for holding the meeting be optional with the different Societies." The Department is not favourable to too frequent amendments to the Act but I have no doubt the matter will be taken up if this proposition is again approved of by you.

We all heard with deep regret of the great losses and suffering through which the hardy pioneers of the Temiskaming District passed when the terrible bush fires swept over the country and wiped out in a few hours the homesteads, barns, live stock and savings of a life time and cut off so many valuable lives, young and old alike. I am confident that those present have done their share in alleviating the distress by contributing supplies and money to tide the survivors over the present crisis. A number of our Agricultural Societies in the North have suffered heavily and lost their all, but in time they will rise again from their ashes and become stronger and more prosperous than ever. I am assured that their Legislative Grants will be maintained in the meanwhile.

You will all, I know, join with me in expressing our deepest sympathy with the families of three of our esteemed judges, R. E. Mortimer, Jno. McDiarmid, and J. A. McLennan. They were all earnest honest men, who ever tried to do their duty in the important work entrusted to them. Their places will be hard to fill. We shall indeed miss them and their valued co-operation.

It is pleasing to note the continued interest and enthusiasm of those who come here from year to year and take part in our great Conventions, without hope of personal gain or financial reward, but you know, as I know, that a life of service to your fellow men is the only life worth living, and to feel that when life's light is withdrawing you have the satisfaction of knowing that you have left the community in which your life was spent a little brighter and a little better than you found it.

The war that ended in 1918 has been followed by another almost as far-reaching between capital and labour. You who attend our Convention are interested in both these classes. Our aim should be that labour as well as capital have its just reward. Both are necessary for the upbuilding of the nation. In the year just closed I know, and you know, that the farmers of Canada have not received a fair return for their industry. Without a prosperous farming community our cities languish and die. This is not as it should be, but we look forward to brighter and better times in the future. Hope eternal springs in the human breast, and we long for that happy time when, "Man to man the world o'er shall brothers be."

All heirs to some six feet of sod
Are equal in the earth at last.
All children of the same dear God
Prove title to your heirship vast
By records of a well-filled past.

Discussion.

Dr. A. T. Morrow, Maxville: After this eloquent address, so well put and so definitely stated, there is not very much that I can criticize, yet I may be able to add a few words of commendation and perhaps expansion, because the subject is very large.

In speaking of the progress of the Societies of this Province, if the rest have done as well as those in District 1, then your worthy Superintendent is not making any too broad a statement. There seems to be a growing interest in the products of the farm. Perhaps it is that the people need money worse to-day than they ever did, and they are trying to produce a better article which will command the market.

He speaks of the difficulties that we have with wet weather. That is not so great a financial loss to-day as it was formerly, now that we receive 90% of the deficit of the gate receipts, based on the average of three preceding normal years.

Then there is the social side of our exhibitions for old and young people. They learn a great deal there. It is a time to look forward to, especially in the rural districts, as the greatest event of the season. When I was a young lad, I had the opportunity to attend my first fair. It was a wet morning, but showed some signs of clearing. My father got the team out, but it started to rain. We were a pretty crestfallen party. I had my first quarter all ready to spend at the fair. After a bit my brother went out, and came back and reported: "It is still raining." I slipped out on the other side of the house, came back and said: "It is not raining on this side of the house." I heard about that for a good many days afterwards. But that shows the anxiety of optimism of youth in regard to that particular day. I remember things that I saw at that fair yet. It is a great education for the young, and if our directors did nothing more than bring the people from the rural districts together to converse with one another and compare experiences, they would be well paid for the trouble taken in running an agricultural Society and getting a fair held.

He speaks of the Better Bull campaign. I think that this is perhaps one of the most important questions he has touched on from a financial standpoint. Our directors in preparing their lists should pay particular attention to the quality of the animals which are suitable to their district, and also to the market for which they may be designed. There is no use trying to give a prize list too extensive—although I believe in encouraging everything, for in five years that may be the thing that will be demanded in the market—but we should pay particular attention to the thing that is best suitable for production in the locality. In Eastern Ontario, dairy cattle are those universally raised; in some other parts of Ontario beef cattle prevail; in some other sections the dual purpose cow is the one desired. Those are the lines which we should pay particular attention to in preparing our prize lists. For horses and cattle the same pretty nearly applies all through.

It is a splendid thing to have our judges with a uniform standard. There is nothing so confusing as for one judge to come along one day and to give a horse first prize, and when the same horses compete at a neighbouring exhibition the judgment will be reversed. That throws discredit on the system and clearly shows the value of uniformity of ideals in judgments.

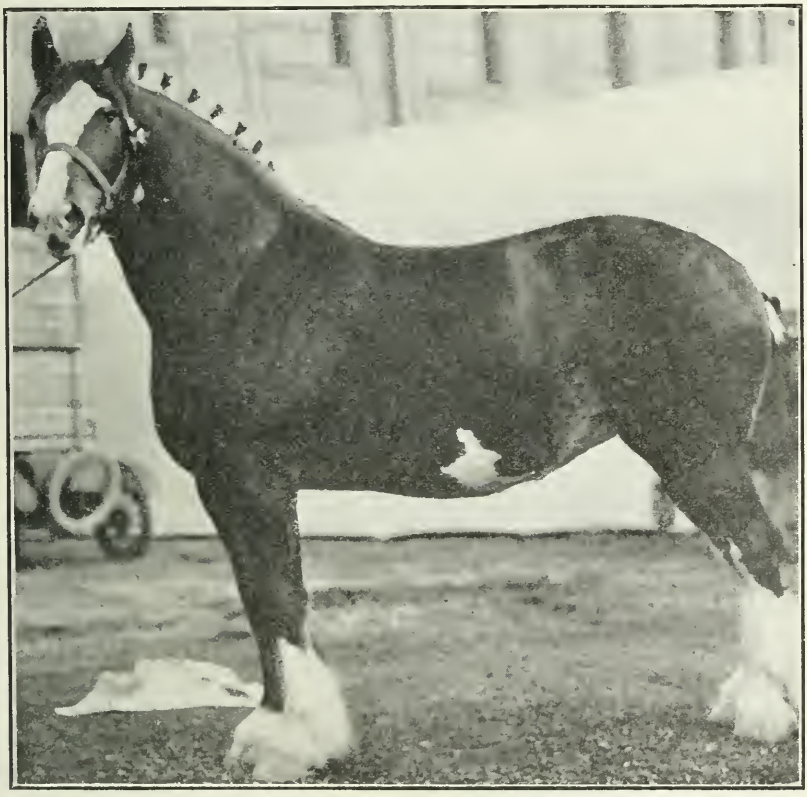
Another point is the action of the judges when they go to a Society. I would like to see printed in red letters the admonition of your worthy Superintendent to the judges, so that every judge would be sure to read it, because when a judge goes to a place and gets talking to some person, others interested see it and form wrong conclusions. There is nothing so demoralizing to a Society as to have people get an idea that a judge is prejudiced by these seemingly suspicious conversations. Most people I think are reasonable, and will be satisfied if they think everything is square and above-board, and they are willing to give the man wide latitude in judging.

The field crop competitions are developing and broadening from time to time, and yet my neighbouring county—Stormont—has not yet entered them. I will endeavour to get some of them started.

This year we put into the rules of our Society that any person who received a prize from the Standing Field Crop competition should exhibit a sheaf from that field so that the public might see it, and it would bring the field crop closer to the Agricultural Society. You ought to have seen those sheaves! I think some of them were picked in the most haphazard sort of way, and I have heard farmer after farmer say: "If that is the best they can do out of a prize field, none of it for me!" Particular stress should be laid on a man picking a nice

sheaf and arranging it in the best form. I don't think a prize should be paid for anything that is not well arranged, as its effect is supposed to be educating.

This brings me to a few things regarding your local duties. Some Societies do not own their own grounds. I hope that they will in the future. You owe, as a Society, a debt to the people of your community. Every man who exhibits at your fair does it at a sacrifice of his own time, and his prize money is only partial payment for his effort. Our country is becoming gradually depleted of its forests and groves where we used to entertain the public. When you plan your grounds you should have sufficient land to lay out a park for the future. Then you will have something for posterity, and you will let people



A Cairnbrogie Clydesdale.

know you are working not for the dollars and cents, but as a whole for the community.

Richard Honey: I happen to be president of our Society this year, and the annual meeting was called at the regular time. Unfortunately, I had to go to the funeral of a relative that day. I called up the secretary-treasurer and asked him to postpone the meeting until four o'clock on account of the funeral, as I knew a good number of friends wished to attend it. He said it was contrary to law and the meeting had to go on. It did, with the consequence that it was a failure. I think this should be left with the directors of a Society, as sometimes things interfere.

R. J. Bushell: I represent the Kingston Industrial Fair that started five years ago with buildings costing $1,000, and a deficit of $254. I am pleased to tell you that our expenditures in 1922 were nearly $20,000 with a surplus of over $2,000, and $7,000 spent in the way of repairs to buildings. This is done by having energetic officials. It costs more to operate a fair to-day than five or six years ago, and we were told at our annual meeting to read the superintendent's address. We did. If a proper committee was formed and waited on the Minister of Agriculture, I don't see why you could not impress upon him the necessity of increasing the grant from $85,000 to $100,000. I suggest that a committee be formed from this gathering to wait upon the Hon. Manning Doherty and put forward to him our claims. When we look at the Government report and find that the Government increased expenditures on behalf of education by $5,000,697.15 from 1919 to 1922 (and we all grant education is a grand thing), and find that in 1919 they spent on agriculture $1,119,000, and in 1921 $1,253,000 on agriculture which is the basic industry of the country, I submit that the comparison of these two figures is out of all reasonable ratio.

W. J. Connelly drew the attention of the meeting to the resolution which had been passed the previous year asking that the Association hold any surplus left from the $10,000 Wet Weather grant until it reached an amount of $20,000 in order to provide for years such as the previous one where only 65% of 90% of the losses could be paid. He further warned the smaller societies whose gate receipts did not run over $500 that they were not serving any good purpose to themselves by insuring against wet weather in any outside insurance companies with heavy premiums, as the Government was taking care of them to a maximum of $500.

Mr. Denton, of Tillsonburg, of the Tillsonburg and Dereham Agricultural Society, took exception to these remarks as he was also solicitor for one of these insurance companies. He pointed out that there was a maximum set by the Department which they paid, whereas the insurance company protected to any amount.

Mr. Connelly pointed out that he had specifically mentioned only the smaller fairs that would not derive any benefit from this form of insurance. He freely admitted that it was a good thing for the larger society that had over $2,000 gate receipts, and his warning applied only to societies whose gate receipts were under $1,000. As an official of the Fairs Association for so many years past, he felt himself justified in throwing out any suggestion which served to benefit any society in the Association.

W. S. West, Woodstock: At our meetings in the last eight or ten years our board of directors have done their best to put forward the Field Crop competition. Are we patronizing them as we should? You will bring your stock to our Agricultural Fair for the honour of obtaining the first prize, but you fail to realize the honour pertaining to the Field Crop competition, and the prizes range from $7 to $75. That is one point. Another matter which our superintendent spoke of was not to do away with the small fair. I congratulate him on this stand. We do not want to see any of the small fairs drop out, because the smallest fair in our country is the best day of the year for the people of that vicinity. Some of the smaller fairs in our county are doing better than the larger ones.

I have a certain amount of fault to find with this Association in connection with Government judges at our fairs. We had Government judges at our fair for all departments. We paid the Department $66 for judges. Some of them are good. In our Horse Department we could not have got better results;

the Cattle judge was a failure. This year on Dairy cattle we had boys standing back and smiling to themselves when the judge came along and left out the first and second prize animals at Toronto, and gave it to others not so deserving.

Mr. Ross: I believe the directors and the president have a great deal to do with the success or failure of their societies. If they get out and work among their fellow members they can accomplish a good deal. We worked it in Thunder Bay, Port Arthur and Fort William. Our farmers are busy there at the time of the fair, and also in the spring and fall, and we have great difficulty in trying to get them to compete in the Field Crop competition and at the fair. We give a special prize of a shield to the Farmers' Club. We invited them to bring out their stock and we pay the transportation charges both ways. We increased our entries very much both in live stock and other exhibits. We gave this shield for all the clubs to compete for, and the club winning it holds it. We give 3 points for the first prize, 2 for the second and 1 for the third, and the club that had the most points had the shield for this year. The same way with the Field Crop competition. Even then we had to go out and coax them to get them interested.

Wm. Hickson, Bobcaygeon, warmly commended the idea of Boy Judging contests. He said he worked it in his own Fair, providing the boys with score cards, and in many cases the boys measured up better than the older men. Mr. Hickson also endorsed what Mr. Wilson had said about seed grain of old varieties coming back on the market under new names.

J. Lockie Wilson then elaborated on the rules for the Field Crop competitions, saying there must be not less than ten in the regular crop competition, and not less than fifteen in the combined. In the regular the total money was $75; in the combined the Dominion Government put up $200, the Ontario Government $50 and the Society $25—making a total of $275.

All too often, said Mr. Wilson, the secretary adds a name or two to make up the number, sometimes without consulting the party. A hail storm may come up and some of the crops would be unfit to be judged. The result is that there are fewer competitors than the number required and the prize money cannot be paid on account of there being insufficient names in the competition. Thus the ones whose crops did not suffer are penalized on account of the rules not being complied with. You will readily see the necessity of having more than the ten entries required in order that the competition may be carried out. We have sent out judges at considerable expense and when they arrived at the homes of the parties whose names were on their list, they stated they had not made entry and would not allow any part of their crop to be judged. It is only by all working together and carrying out the rules and regulations that these competitions can be made the success we hope they will be.

The Combined Threshed Grain and Field Crop competition means $275 in prizes for each society—that is a big amount of money. What are the conditions: you must have not less than 100 bushels in the bin; your field crop is judged by my department; 60% is allowed for the standing crop, 40% for the grain in the bin. Many farmers have entered this Combined competition, purchased registered seed, had a good crop in the field, but absolutely failed through not having their grain properly cleaned when the judge came to examine it in the bins. The conditions are that the grain must be thoroughly cleaned before the judges score it. What I want you to do is this: educate your competitors. When you want a judge don't wire me two days before the crop is ripe and say: "Send on the judge, the crop is all ripe, some of our men beginning to cut." Several days should be allowed previous to the judge starting his

work. Keep in touch, you secretaries of societies, with the men who enter, find out the conditions of their crops, and let me know at least five days before you want the judge, and the judge will be there on time.

Mr. Hill, Madoc, complained of the poor judging by some of those engaged to do that work. As a result no awards were made to those concerned.

[Note.—Less than half the competitors required had their fields judged which accounts for the failure of Madoc Society to receive the grant in 1922 for the 1921 competition.—Editor.]

W. Wiggins, Bancroft: I cannot see that it is fair for those remaining men to lose their labour because some not complying with the regulations cuts the number down. For illustration, if nine men of that ten go to all the labour of fitting up that field, should those nine men work in vain because one man fell behind? I maintain they should not. There is no reason because one man falls down that the others who do the necessary labour should be penalized.

Col. Craig said he had accompanied Field Crop judges around on their trips for five or six years, and had never had an instance where a man was anything but very ready and willing to give to every competitor an explanation of his reasons for a decision. He felt they had acted very fairly and squarely as far as his society was concerned.

Mr. Webster, Uxbridge: Our township this year had a record for what was done at the Canadian National Exhibition. The first prize winner has never shown anything at our fair, and has never been interested in it and rarely attended it, but he became interested in this Field Crop competition, and got first prize at the Toronto National, and we will largely be known as producers of registered seed this year. Fifteen years ago the residents of Scott were sending their grain for exhibition to London, England.

J. G. Kent, Manager of the Canadian National, then addressed the Convention in a few brief words, remarking that he had got some pointers for the Canadian National from some of the Country Fairs. He further characterized the Rural Fairs as feeders for the National.

W. Walker, Fort William: I am from the Thunder Bay district, and it has been suggested to me, and I think probably our Fall Fair will adopt the suggestion, to hold a Baby Show. We have heard a great deal about fine cattle, fine poultry and fine fancy work, but not enough about fine babies. In connection with this Baby Show we propose having a Baby Clinic at the Fall Fair, to have doctors and nurses give their services free, and during the fair that mothers shall bring their children along, and that they shall be examined absolutely free of charge, and then on one day of the show have a Baby Show with prizes.

We also received the suggestion of a milking competition. We have heard a great deal of talk about pure milk. Too much attention cannot be given to this pure milk question. There is too much disease which comes from impure milk and the question of pure food in the form of milk is something that should receive great attention, so that this milking competition will receive support in our organization.

With reference to Judging; too much attention cannot be given to that. A poor judge will cause a great deal of dissatisfaction, and that is a hard thing to right.

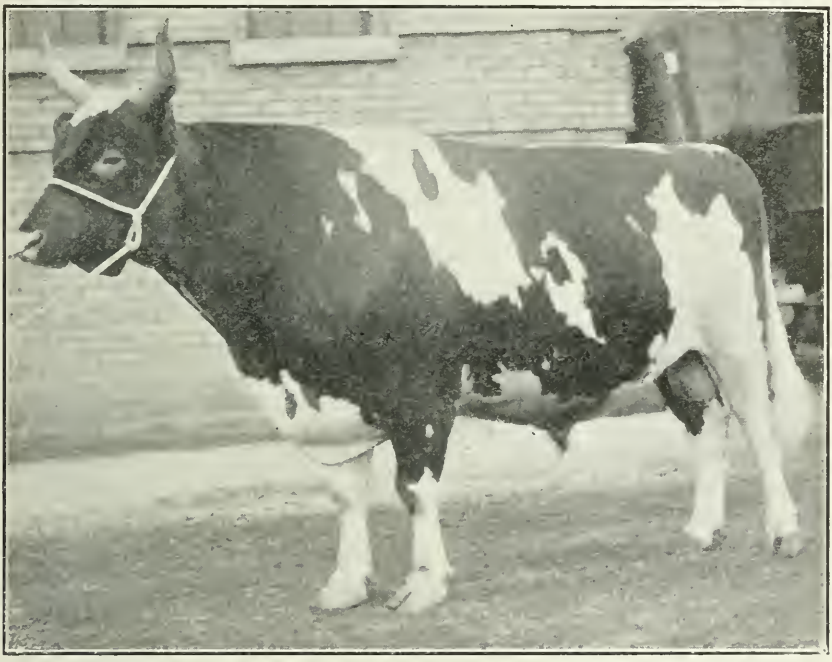
Another matter is that a lot of us, particularly from the further distances, want to see a little more of our Superintendent, Mr. Lockie Wilson, and we would like to have a day at this Convention on which delegates could see him and talk over matters in private.

Moved by W. J. Connelly, seconded by Richard Honey: That the Annual Meetings of the Societies be held on a date between the 1st and 20th days of January of each year inclusive. The hour to be fixed by the different Boards of Directors. Carried.

Mr. Wilson said he would submit that to the Minister of Agriculture, as it had now been passed two years in succession, and he would ask the Minister to have the Act changed.

Moved by R. J. Bushell, Kingston, seconded by Wm. MacDonald, Rockton: That a committee be appointed to wait on the Minister of Agriculture as outlined by the mover this afternoon regarding an increased grant to Agricultural Societies." Carried.

Mr. Hume submitted, in regard to the Wet Weather Insurance, that any surplus left from the $10,000 should be retained by the Association, and suggested a motion which the Secretary might pass on to the Department.



Prize Ayrshire showing good constitution and vigour.

J. J. Hunter, Kincardine, said the Minister had given his ruling three years ago to a committee composed of Mr. Connelly and himself. He contended it did not make any difference who held it, as the Association got it to the full extent, and if it was not used up, the Government would take it back.

J. Lockie Wilson: I don't think the Department would look favourably upon handing the balance of that money over each year to any association.

It was thereupon moved by Mr. Hume, seconded by Mr. Honey: "That we ask the Government to increase the Wet Weather Grant, to be paid to us on the 90% basis, but not to exceed $15,000." (Motion lost.)

A Member asked the Superintendent if it could not be arranged to have an extra carbon of the Judge's report sent to the competitors in the Field Crop. Mr. Wilson said he would try to arrange for that.

PRESENTATION TO THE SUPERINTENDENT.

The usual proceedings were here interrupted, and Mr. and Mrs. J. Lockie Wilson were made the recipients of a handsome mahogany Westminster Chime clock, and gold locket and chain. MR. AULT read the address and MR. A. R. G. SMITH, made the presentation.

Mr. Wilson, on behalf of Mrs. Wilson and himself, acknowledged the gift in a few appropriate words touching on the very amicable and pleasant relations which had always existed between himself and the Board and Members of the Association, which represented 200,000 members in the Province.

ADDRESS

CANON CODY, TORONTO.

There is a very great value in the officers and members of these different fairs and exhibitions throughout the Province having the opportunity of meeting one another. Mutual understanding and good fellowship among those engaged in the same general occupation always tend to good will, to progress and to efficiency in administration. It is a good thing that the Government has so organized this Association of Fairs and Exhibitions as to give it a permanent Secretary and Superintendent who keeps in close touch with these different organizations. In one of Bacon's essays he makes a very wise remark, "that the prosperity of any country depends upon three general factors—fertility of the soil, good laws honestly administered, and easy means of communication." Easy means of communication do wonderfully tend towards national prosperity and easy means of communication between Eastern and Western Canada, between Northern and Southern Ontario tend to unify and build up the country.

I noticed last summer when I went to the Old Country that the fare from Toronto to Liverpool, and *vice versa*, was such that really Toronto was farther away from Old England to-day than it had been for the last fifty years, because ease and cost of transportation really measure distance. So in the Province of Ontario, as we have easy means of communication, we are going to be more homogeneous; we are going to understand the needs of various parts of the province in such a way as will tend to bind us closer together, and whatever may be our calling, deep down in the heart of every one of us is the conviction that Ontario is the banner province, and it is our duty to keep it there.

Among the various enterprises that build up a province, there have come in the course of time to be these fairs and exhibitions. I always rather like to trace what you might call a historic picture for present institutions, and it is an interesting development that practically the whole development of business in old Europe arose out of great city fairs. In the Middle Ages the only means people had of meeting together to do business was through the holding of great fairs. Some of these have, we find, come down through our own times. Before the war there used to be a Leipzig fair, to which people came from all parts of the world, and that fair served as a means whereby buyers and sellers could get in easy contact. Such a fair was held until recent years at a noted Russian city, where enormous international fur-tradng was conducted.

Our modern fairs and exhibitions are the descendants of these old mediaeval fairs through which the business of Europe, and through the business of Europe, the business of the world was built up.

The fairs and exhibitions to-day fall, I suppose, into two broad classes. There are special ones held to commemorate great events, and there are annual exhibitions. Now there have been exhibitions held in special centres to commemorate great events. The first exhibition of which we have immediate knowledge—and not many of us here have personal recollections of it—was the exhibition held in the Crystal Palace in Hyde Park in Old London in 1851. As you know, Queen Victoria's husband, the Prince Consort, had the idea that English manufacturers could learn a great many lessons if they met with continental manufacturers; he thought that business would be tremendously stimulated. Now, it is a curious thing that there were two odd misconceptions generally prevalent about this exhibition of '51. Some thought that all the revolutionists would come to London and burn down the capital. That misconception passed away and nothing happened. Then other people of a more sanguine temperament imagined that when people met together to do business from all parts, there never would be any more war; 1851 was not a great way off from 1854 when the Crimean war came on. I do not think war will ever be held off by business relations of nations.

Then many of you will remember the Centennial Exhibition, 1876, in Philadelphia, when the big Krupp gun was the marvellous attraction.

Then there was what some of us had the pleasure of attending—the World's Fair in Chicago in 1892. We got a glimpse practically of the whole world at that exhibition. Undoubtedly business is stimulated, and certainly the mental horizon of all who attend is wonderfully broadened.

I remember in 1894 going to a World's Fair in the Belgian city of Antwerp. It was held in commemoration of Belgian independence from Holland. Here again business men from all countries came together, and the result was a general advance in world interest in country and in world manufacturers. That is one class of fair.

Now we have not precisely that class in Canada yet, but we have developed to a tremendous extent the other and more normal type—the exhibition of products of the farm and industry. We have developed the holding of these annual exhibitions where these products are set forth through this Dominion of Canada. And many of these annual exhibitions are stepping into the position of almost international ones. Under this heading are placed the fair at Dallas, Texas, and the great Minnesota fair for the great Middle Western states. But of all thee fairs, I think we are not unduly prejudiced in favour of ourselves, when we rank foremost of these fairs that have attained to the rank of international annual fairs, our own Canadian National Exhibition. Last summer, when I was coming back from England on the "Empress of Scotland," I met on board the general manager of Huntley & Palmer's, manufacturers of biscuits, and I said: "I suppose you are coming on to Toronto?" He said: "I am leaving for New York to leave my daughter on a visit, and probably shall be passing on to Toronto, and shall spend about three days at Niagara Falls." I said: "You should stop off at Toronto for three days and give one day to Niagara Falls, because if you come to Toronto on the three days in question you will come when the Canadian National Exhibition is held, and if you want to see Canada in miniature, if you want to see the Canadian people at their best, if you want to see the greatest popular university in Canada, stop off and go to Toronto exhibition. And, to my surprise and delight, I saw him and his family in the front seat in my church later on. So I laid hands on him, brought him to the exhibition, and they stayed in Toronto for four days. He said it was the greatest revelation to him. And he said. "We are going to hold a British Empire exhi-

bition in London, and I am going to suggest that the first thing they do is to send out to Canada and study the methods of the Canadian National; and I believe in essence that has been done.

May I just add a word about the extraordinary value of these our fairs not only in the city of Toronto but in the other cities, and in the towns and villages of the province of Ontario. Ontario is what we call a well-balanced community. We are not merely agricultural or industrial or mineral producing, and the interest of every single class in the province of Ontario is fundamentally identical with the interest of every other class in the province. The mining men, the lumbermen, and the farmers and business men have a common interest, and no one class can fail to prosper without all the others being affected. No one class can really prosper without any other class being affected.

The social intercourse which the country fair affords is of great value in the community. It is an outstanding memory of my own boyhood days when all

Southdown Ram.

the swells from farther away used to come to our fair. Your fairs in every part of the province are a great gathering place. Don't underestimate the educational value of the community meeting under such auspices. Then you see at these fairs, in the large or small, an exhibition of the natural resources of our country. What is true in the large Canadian National Exhibition is true in a measure of every exhibition in the province. Our province is so diversified in its resources, that if a large fair is held in any part of the province it lays special emphasis on its resources. Sometimes people think that we in Canada are too prone to blow our own trumpet. I really do not think in all honesty that the charge is fairly made, for this reason: We have been all too slow in Canada to realize what a great inheritance we have, which is reflected in something Voltaire said in regard to English and French wars. He said: "These two countries are at a war over a few acres of snow and are spending on this war more than Canada is worth."

From that day to the present day we have been finding out more and more about the various resources of this Dominion. The exhibition is the best known method of putting before the eyes of the people what we have.

In connection with that, I want to draw your attention to one point that is not generally recognized. If you remember, for example, the article on Canada in the Encyclopædia Britannica, you will find that Canada is put down as essentially an agricultural community. That is not true at the present stage. Industry is developing, getting up to man's stature and man's strength, but a book like the Encyclopædia Britannica still characterizes Canada as an agricultural country. And not for one moment do we minimize the tremendous importance to every class in the community of the mighty agriculture as our basic industry.

Do you know what proportion of the total area of the Dominion of Canada is arable land? It is well worth looking into. At the present time we have become the greatest wheat exporting country in the world—(that is true, we beat the United States last year by nearly 100,000,000 bushels of wheat!) But do you realize what proportion of Canada is arable? Fifteen per cent., and eighty-five per cent. of the area of Canada is potentially mineral-producing.

You know one of our great problems in Canada is how to beat geography. Here we are stretched from ocean to ocean, and right in the centre between this great area in the east covered once over by forest and the great prairie region, we have the rock of the pre-Cambrian formation. It seems a barrier; in many respects it is, and we have to beat geography at her own game, and hold the East and West together, and cross this great area with lines of steel; but we are beginning to understand now that this great pre-Cambrian wedge is potentially one of the great mineral-bearing areas in the world. The end of the wedge comes down south of the international boundary into Michigan, where the most available and readily-mined copper mines of the United States are. But we have the thick end of the wedge, they have only the point of it. And I believe, as surely as we sit in this room to-night, that the Dominion of Canada will be known not only as a great agricultural dominion but one of the greatest mineral-producing areas in the world. You will find within the next twenty years or so, capital that is now directed toward the development of South Africa directed to the development of mines in North America. I talked on this subject wherever I went in England, and even to King George when I had the opportunity.

An exhibition gives us the opportunity of putting within the range of eyesight of the possible buyer our natural resources and our manufactured products. Almost every stage of progress in manufacturing is represented in our exhibitions from one end of the province to the other. If a man has a good thing, if he has made any advance in any process, he wants to show it at the great fairs, and those who see it go home stimulated with new ideas, and it is new ideas which eventually will mean progress.

At our fairs, from the little country or village fair up to the large National Exhibition at Toronto, you get a better idea than anywhere else of the true spirit of Canada, of her citizenship. You see the whole country in miniature. You see our grave and our gay side. You see Canada almost at her best. It is a great thing to have visualized the spirit of a country, and Canada has come to man's estate. When those words were flashed from ocean to ocean in April, 1915, "The Canadian division saved the day, but the casualties were heavy," Canada in some mysterious way, easily to be understood, with one bound seemed to reach man's estate. There was the thrill of unity and the thrill of power, and Canada to-day is realizing her capacity, realizing her ability to do things. That is one of the greatest results that have come out of this awful welter of the war.

In our exhibitions you really see the spirit of Canada, the spirit of enterprise, the spirit of resourcefulness, the spirit of ready adaptability to new conditions. You know they used to say overseas during the war, about our Canadian boys, that you could almost tell a Canadian, but you could not tell him much. He had the faculty of fitting into the newest conditions, whether in the newest trench warfare or whether in a rest camp in England. The spirit of our country to-day is a spirit of independence, self-reliance, of resourcefulness and of hope.

Two of these characteristics I would emphasize. You know one hundred years ago the tide of immigration began to flow from the old world to the new, and who were the people who came? The people of the generation that beat Napoleon Bonaparte, the people who had an indomitable trust in the destiny of their race, people who were solid, who had the instinct of self-government, who were not always asking the state to do things for them but who were self-reliant and wrought their own economic salvation. They were people, independent and self-reliant, believing in the destiny of their race, and they had an unabashed faith in their religion. May we maintain unimpaired, and transmit the inheritance we have received from them! Two of these characteristics we need to emphasize at the present time. One is the characteristic of good, solid, hard work. There is not any substitute for sweat—sweat of body and sweat of brain. A great many people are busy by day and dreaming by night of easy ways to get rich, but in the long run nothing takes the place of good, solid, hard work. We shall be remembering our forebears when we preach the gospel of good, honest, hard work.

And the other that marks the spirit of Canada to-day, is the spirit of hopefulness. In coming from one French city to Amiens during the stormiest days of the war, when the cathedral there had been demolished on which the statue of the Virgin Mary had been left intact, some British Tommy had painted on a white barn in red letters the words, "Pessimists will be shot on sight." A splendid expression of the spirit of our men! I believe that is the expression of the spirit of Canadian people of to-day. I do not think there is any country on the face of the earth that has to-day fewer handicaps than we have, and greater opportunities than we have, and if we go down it will be our own fault. But we shall not go down, please God, because we have the right spirit—the spirit to work, and the spirit to hope. Let us face this splendid future of our own great Dominion in the spirit of high hope. I believe there is not any means in the Province of Ontario comparable to that afforded by our fairs and exhibitions for bringing together the people so that they realize their duty, for showing them the splendid inheritance that they have, demonstrating what can be done when intelligence and science and work are combined, and making them realize that they are members of a growing nation—there is revealed the very soul of Canada.

I am sure you will go away from your counselling together, from meeting one with another and exchanging ideas, with fresh determination to make the fairs and exhibitions of the Province of Ontario worthy of the province, worthy of the Dominion and worthy of the Dominion's place in the Empire.

ADDRESS.

Hon. Manning W. Doherty, Minister of Agriculture, Toronto.

The privilege was to have been mine of speaking to you this afternoon upon a matter of very great moment—a question which is being very much debated throughout the province. It was impossible for me, owing to my duties in the

House, to be with you much. I am delighted that I have had the opportunity of coming here this evening, not only for the privilege of meeting you, but have had the opportunity of listening to the eloquent and lucid address of our friend, Canon Cody, who has very ably covered the subject and has given you a viewpoint of what really is at the bottom of our fairs and exhibitions, what we really are striving for, even though it may be in the township fair, it being exemplified all through even to our national fairs.

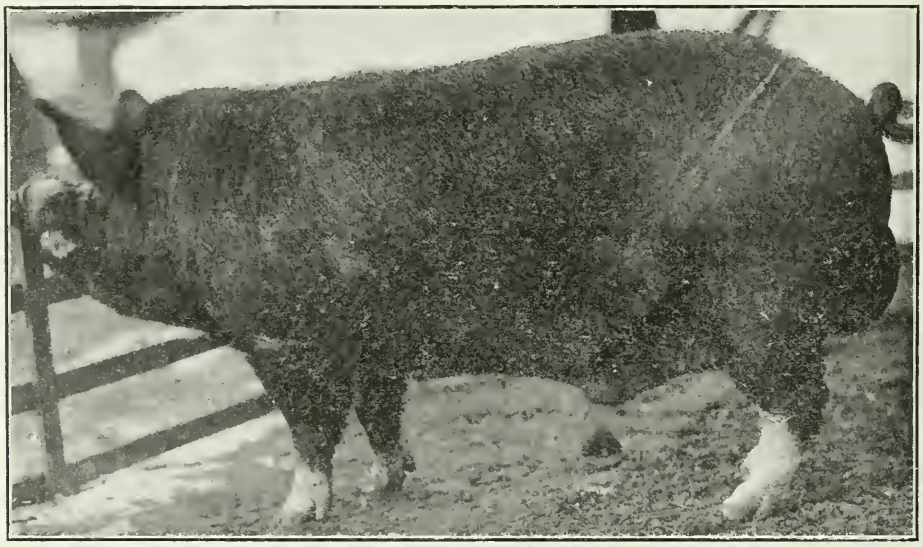
We believe in our department that our township fairs held here and there throughout the Province are worthy of very serious consideration at our hands, and that these fairs deserve the undivided support of all the people. It is true when we go to our larger fairs, such as the Canadian National, we see probably more that interests us, we see, as it were, the finishing touches of an education. But, after all, we must not forget that one of the primary objects of these fairs is to stimulate the rising generation of this Province, stimulate them to the production of a better quality of products, stimulate them by healthy competition with their fellow producer, and this initial initiation into the pleasure derived from healthy competition can be worked out much more satisfactorily at our small fairs than at our larger fairs. I sincerely hope that in your deliberations here you will find ways and means of improving even the fairs of to-day. There are many of our fairs held here and there throughout the Province that are a real credit not only to those instrumental in organizing them, but a real credit to the Province. There are others of our fairs, however, that I am free to admit can be vastly improved upon. One of the unfortunate circumstances—and I think you will all agree with me—is that so frequently the work of organizing a fair and of carrying it through to its finish devolves upon the shoulders of only a few in each community. I have not a doubt in my mind but that those of you who are here are the very ones that are shouldering the responsibility in your own respective communities of organizing and carrying through your fair. I would that you could devise some means that would stimulate an interest in all the people, bring them to a realization of the fact that they have a duty to perform in making their fair a success.

Now during the year 1922 agriculture in this Province has gone through rather a trying siege. I am not a pessimist. I quite agree with the Tommy who wrote the sign on the wall that "Pessimists should be shot at sight." I cannot believe that we have in our midst in this country any who are really pessimists. If there are any, then they must be shortsighted; they can neither see distinctly the things of their own country, nor are they capable of comparing our condition with that of other countries. However, during the past year, owing to circumstances, owing to market conditions, our farmers have not realized from the very bountiful crops the returns that they desired, and the returns that all the people of this country, irrespective of their calling, wished that they should have. But I must say for the farmers of this Province, that they have shown during the past autumn that they are no pessimists, that they have not lost faith in their industry, nor have they lost faith in their country.

I had the privilege of attending several of the fairs held in various parts of the Province this last autumn, and I think I can honestly say that I have never known the fairs to be better attended, I have never known the classes to be better filled, nor the stock to be in better condition. This is a great tribute to the farmers of the Province. Our industries at our fairs were well represented as usual.

Let me just say one word on a matter which has indirectly a bearing upon the success of our fairs, and it was brought to my mind by some of the remarks

of Canon Cody. I have felt that we are passing through a period when it is the duty of every government to lose no opportunity of advertising her products, both to her own people and to the people of the world. The time when a government to my mind should be most active, the time when a government is most greatly justified in expending public money in the advertisement of her natural products and of her manufactured products is during times of stress and trial. With that end in view, the government of the Province of Ontario during the past year has spent a very considerable amount of money not only on our own fairs but in making exhibits of our products at fairs in other countries. Particularly are we justified in spending money in exhibiting our products to the people of Great Britain. When all is said and done, the great consuming market to which this country must look for years and years, if not for all time, is the British market. I quite understand that, intermittently, at various times, other markets of the world will attract our products because of higher prices, but, after all and over a long period of time, the great consuming market of the world,



Berkshire.

to which we have such admirable access, is the British market. Therefore, I have felt it our duty to place our products before the consumers of Great Britain, and it is my intention as long as I remain where I am to continue that policy.

Further than that, I believe it is our duty to put our products on exhibition in Great Britain, where this opportunity is offered us, in order that the people of Great Britain may become better informed as to the possibilities of this country. Canon Cody has just told you a story of the gentleman whom he met on board ship who was thunderstruck at what he saw at our Canadian National Exhibition. In the exhibits that we made at the Dairy Show at London, in the exhibits that we made at the Fruit Show in London, thousands of Britishers were surprised at the quality of our product, and it is my belief that thousands of good Britishers as a result will be attracted to this country and become citizens of this country.

This brings me to say a few words upon the subject matter that I had in my mind. I have repeatedly said that in my opinion the great problems that

face the governments of this country to-day are, in the first place, the supplying of a system of adequate credit to meet the needs of the rural people—a system which, while supplying adequately the requirements of the rural people of this country, will in no way jeopardize or injure existing institutions. The second is the opening up and development of markets for our products; and the third is the bringing into this country of the thousands of people in Great Britain who would be better off if they were with us and we the better off because they are here.

I know there are those who say that this is not the proper time to bring into this country people from Great Britain. My own opinion is that now is the proper time; now is the safe time. And the time which is most unsafe to bring in settlers in a country and establish them is when things are at the peak, when prices are highest and values are highest, then is the dangerous time for a country to bring in and establish settlers, because if there should come—as in the ordinary cycle comes—a deflation or a drop in value, then these people are in a predicament. I am of the opinion that this country would be well advised at this time to put into force an aggressive policy of selective immigration. As Canon Cody has said, we in this country have undeveloped resources second to none in the world. Conditions in the mother country have vastly changed in the last four or five years. There are hundreds of thousands of people of the best stock of Great Britain who are anxious that their children shall have greater opportunities. These are people who have our ideals, people who have our ideas of law and order, people of the same stock that the people of this country came from. These hundreds of thousands of fathers and mothers with their boys and girls are anxious that they should have an opportunity to do well, and we know of no Dominion in the Empire that offers them opportunities equal to those of the Province of Ontario. And, I say it in all sincerity, that it is my opinion that those who contend that at this time the barriers should be put up, and these people should not be encouraged to come, would head us to our bankruptcy.

Let me again express to you my sincere hope that as a result of your deliberations you will go back to your various communities imbued with the spirit of making your fairs of 1923 greater and better than ever before.

ADDRESS.

Hon. Howard Ferguson, M.P.P., Kemptville.

Perhaps there is not very much encouragement for me to offer suggestions after my experience to-day, because I laboured with all the ability I had to point out to the Prime Minister and the government the error of their ways, and the Prime Minister declined to acquiesce or profit by it, but seemed to resent my suggestion.

However, I came as a guest to be with you to-night, and to listen with the pleasure that I always experience in listening to my good friend, Dr. Cody. I am sure that all of you must have been impresssed by the wonderful grasp he has of our educational problem, the great vision he displays in connection with the future of this country, and the intense patriotic devotion he evinces toward this country and its interests. I was much amused by the reference he made to taking his friend out to the Canadian National Exhibition. I had a similar experience with Dr. Cody at one time. Although we met on the grounds, he

took me to see the exhibition. And I was wondering if he took his English friend to just the same place as he took me, because the first place we went to was the Midway, and, like the English friend, "I was surprised at the things I saw." But the Canon seemed to take them as a matter of course, so that I hope that he did not confine the trip in which he acted as guide to his English friend to that section of the exhibition.

I have to think of politics pretty much all the time, but we do have occasions, opportunities when those of us—and I think all public men can be included in this class—that are sincerely interested in the development and upbuilding of this country have to give serious thought to public questions, and there is none that appeals to us more strongly and is of greater value to the people of Ontario, as well as Canada, than the educational side of our development. It is at the very root and basis of all our national life, and our future success, prosperity and happiness in this country are dependent so very largely on the educational facilities afforded our people, and your fairs organization is an educational agency along certain lines.

The Canon has told you something of the advantages in a social way, and it is of great importance that we should develop the social side of our life, that we should have the opportunity of mingling together on occasions of that kind, exchanging ideas and benefiting by other people's experience, because you know you cannot meet with people without absorbing something from them, and there is a rounding out of character and a unification of ideas from that class of association.

But it seems to me sometimes that there is perhaps a more important feature in connection with agriculture and the application of education to it. If we are going to make a success of agriculture, we must make the surroundings and the opportunities for those engaged in that industry quite as advantageous and quite as comfortable and profitable as our other callings in life. That is the one thing that will give agriculture an impetus and maintain it in the position it should occupy in the various branches of our national development.

Now another element that is overlooked too often is the cultural side of agricultural education. Why should the farmer and the farmer's family not have the same opportunities to acquire cultural training as those who live in the centres? It is entirely a matter of expense; it is entirely a question of organization and development. The machinery is in existence if we will spend the money to make it applicable. I have had occasional opportunity of seeing just what the result of that class of training is. I was unselfish enough to establish—right down in my own community where I could have it under my own eye—an agricultural school. My thought was that a school of that character should be in an agricultural atmosphere, because I think a close examination of our attempts to develop agricultural education as an adjunct to a high school in a large centre has been largely a lamentable failure. You must create the atmosphere if you are going to succeed in working out the problem that you have in mind. Now in that institution I had the opportunity to decide the type of curriculum that should be followed in that school, and there is taught not only the application of intelligence to practical farming—because after all scientific farming is the application of intelligent thought thereto—but also to get a study of literature, the study of history, the study of composition for the boy and girl who have not had that opportunity in early life. We go further than that, and we encourage the development of public speaking. With what result? What is the object and what is the end that is achieved by it? You develop in the otherwise discouraged boy and the girl, who feel that a more fortunate neighbour

in a centre adjacent to them has had more opportunities than they have, and therefore is superior in the way of culture, you develop in them a confidence that begets initiative, resourcefulness and all those qualities which are essential in this country, which is a country of young men's opportunities. Not only does it do that, but I have in mind one particular case. In that school a young fellow came there from a county above—a boy who murdered the King's English, and who stuttered and stammered. I have been interested enough to offer some premiums in a small way for proficiency in different branches of the work, and that boy at the end of his first year took the gold medal for general proficiency in public speaking. That boy is entirely changed from the type of lad he was two years ago, as a result of the opportunity he has been given and the confidence that has been inspired in him by being given an opportunity of acquiring a training of that character.

I live in the country and I think I know something of rural life, and I understand the spirit and know something of the requirements. The long winter nights that are lonely and dreary as the wind and the snow whistles about the farm, how are these largely spent in the most of our farmhouses? With a taste developed for literature, stimulating the mind to follow and further investigate the fields that are still unknown—what a wide range of opportunity is given for more pleasurable, enjoyable and profitable hours in reading, not necessarily the history of the country, but reading any kind of reading matter that is of advantage to us. I have endeavoured to do this, and I am hoping that the Minister of Agriculture will see the wisdom of establishing other institutions of a similar character in other portions of the Province, because I believe they lie at the very basis of successful effort to improve conditions on the farm. I suggested to the Principal that there is no more valuable class of reading of a cultural type that will be of immense advantage to every boy and girl upon the farm, than the biographies of great Canadians. The lives of the men who made this country are the best revelation of the history of this country's progress. You can read the lives of Howe, Macdonald, Laurier, and others who had had such wonderful vision with respect to this country's future, and whose foresight was beyond the ken of the ordinary man at the time, but has been amply justified by the wonderful development we have experienced in this country.

We are pursuing educational work through your fairs that is largely of a material and social character. May I appeal to you that something should be done, that you should devote your efforts and your energies, your thought and endeavour, to giving to the younger generation that live in the rural parts of this Province such opportunities and such conditions as will give them, equally with their more fortunate neighbours, an opportunity of enjoying other phases of life that will add greatly to their comfort and to their pleasure. One of the great improvements is the development of transportation. You bring your people closer together and you create a better spirit. But that has its disadvantages. If people have to go away from home to enjoy the things that they should have at home, I am not quite sure if, from the social and educational standpoint, easy transportation is the correct thing. The only way to meet the problem is to place within the reach of every rising farmer the very best opportunity of bettering his position, of making his life as comfortable, as prosperous and as successful as the men in any other walk of life.

I am very glad indeed to be here to witness the immense sucess that an energetic secretary and those keenly interested in the work can make of a movement if they put their hearts into it. Year after year you are reaching out into new fields and spreading your influence to a greater extent.

ADDRESS.

WELLINGTON HAY, M.P.P., LISTOWEL.

I am here because I know something of the difficulties with which you contend. I have been a resident of a small community all my life, and hope to continue there contentedly. I know the difficulties with which you keep up small organizations, such as fairs and exhibitions, not of the large type but rather of the smaller type. When I look about me here I know there is a tremendous future for these organizations. I know that you do not get in your communities the encouragement from the direction whence you ought to receive that encouragement, and I accept as a business man in my community my full responsibility for not giving to our fall fair boards that help that I ought to give; because it does not matter, so far as we Canadians are concerned, in what activity in life we find ourselves, provided we make that an opportunity to assist in the development of this country, to assist in some way that will make better the community in which we live. All cannot be members of parliament, even if they would like, but you can assist and you ought to assist to make your community a better place in which to live by carrying on this great work which you have been able to carry on with many difficulties staring you in the face.

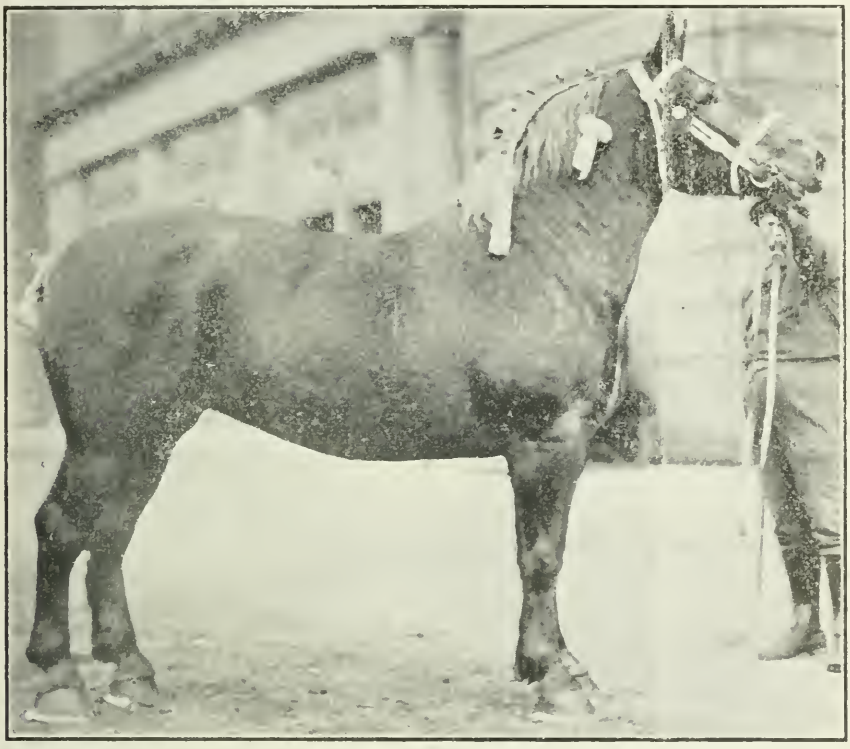
I wonder if the small fairs have gone ahead or if they have gone back, whether I am getting older and less interested. I remember well carrying to the fair the bread my mother baked, and I know since then no such bread has ever been baked. And I know quite well, too, after that was done, in the afternoon when the fair was at its full, I took the cow and her offspring along down to the fair, along with the pigeons and the rabbits that I had watched from infancy. Sometimes I only had the card highly recommended, which was rather disappointing. We have often gone in the early days at the termination of the fair and found there was no money with which to pay the prizewinners. We have gone through all those vicissitudes, and you too have done that. There is much more co-operation now, and much more consideration with an exhibition and a fair than there would be in those days.

In the early days there was the honest competition of the products of a local community, and we were generous in those days, because we often limited the prize to a portion only of the county so that we would not be burdened with outside competition. You have changed that, and you are quite right in getting away from it. I want, as a man in somewhat a public position, to express to you a word of encouragement in the work that you are now carrying on.

The Hon. Dr. Cody has given us some conception as to when fairs began. Dr. Cody did not tell us that the fairs began in a religious way and not associated with commercialism of any kind. Fairs date back in all civilized countries in the world to people getting together for religious exercises. Then came the commercialism, and finally, as most people do, they commercialized even religion, and they began trading with one another. And they did more than that. After they became a more or less commercial organization, they interjected various forms of entertainment for the purpose of getting people to come together. They traded very much together, not only in their own country, but all the countries, and I think practically the last fair that has gone out of existence that carried on as it did a thousand years ago was the fair that Hon. Dr. Cody spoke of in Russia, and their tradings amounted to as much as $100,000,000. To foster trade and commerce at these fairs, they had no tariff on business transacted, passing in or out of that country and into any other country free of tariff.

Now are we not, so far as our big fairs are concerned, getting back more or less to a condition of history that existed 1500 years ago? I think we are. Because by the development of wonderful exhibitions, such as we have at Toronto, Ottawa and London, the day will come that they work in the development of our citizenship and the education of our people who come, and they will again in a measure revert to the question of interchange of business of one kind and another, and I believe that there is a tremendous amount of business transacted through these fairs.

That in a more or less degree brings you right back to our own home town where we see the product of great factories, where we see new inventions that are submitted to us for consideration, and some day, probably much more



Percheron.

quickly than we now think of, we will begin to again repeat what happened many hundreds of years agone by when we come to these fairs for the purpose of education and entertainment and for the purpose of purchasing those things which are useful on the farm and in the home. I will not enlarge upon this, because the history of the fairs is the history of the development of nations and peoples, and it would not be fair at this late hour to attempt to give you any thought along this line, because you probably have already gathered from your own home districts the condition that we have reached and the condition that existed so many years ago. In England, 350 odd years ago, these fairs were just as they are now, practically the same condition obtaining so far as the opening of our fairs is now concerned. The mayor opened the fair in all his regalia; the aldermen followed. The first item was a wrestling match before the mayor and his

officers. The next was letting rabbits out of a bag, and the boys and girls getting out after them. The condition, I believe, might well now be followed with the hope and the desire that the end justifies the means in getting people to intermingle one with the other, to see what the community represents—it brings us back to the desire on the part of the people who are interested in these fairs, in bringing the people together for the purpose of making life in Ontario and Canada the better, and if we can bring about a better condition so far as our home life is concerned then we have wrought a very useful purpose indeed.

ADDRESS.

Hon. Geo. Henry, M.P.P., Todmorden.

The wonderful success of the Canadian National has been at least in part due to your organization, building up as you have been doing for many years, and carrying on. There may occasionally be some feeling of doubt as to whether you were getting real results. You have worked hard, and the crowd has not turned up. It is a rainy day, and your efforts have been almost of no avail. But with the idea thrown out by Dr. Cody that your momentum, be it small or great, is a part of a plan, we should feel that we are all contributing to a great cause, and that after all we have achieved remarkable success in the Canadian National Exhibition and in the Royal Agricultural Winter fair which surpassed the expectations of any man or woman in the Province of Ontario.

Looking at the audience this evening, I note with pleasure the number of young faces in the gathering here. It is a most hopeful sign when we have the younger men taking part in an organization, because it is through progression, new blood mingling in your Boards, that we can develop and meet the changed conditions as they arise.

ADDRESS.

R. R. Hall, M.P.P., Parry Sound.

We in that north country hardly get the recognition that we should for the great efforts we have to make to sustain our annual fairs in the various parts of that sparsely settled country to the north of here. People hardly realize what we talk about when we speak of the North. Take Ontario as a whole, and what do we find? We find that the North means at least 85 per cent. of the Province of Ontario, which is practically undeveloped. The other 15 per cent. has been milking that Northern cow ever since Confederation, and given her nothing but beaver hay, so to speak, on which to browse. They have taken all our wealth from us, and the politicians have given us practically nothing in return. I am not a politician, do not claim to be a politician, but I claim to have a great interest in that district which has done so much for me as to adopt me when I was a young Welsh fellow newly arrived in this country.

I joined the fair, had nothing to show, but it was not long before I had—that was forty years ago. I was a member of the Parry Sound Agricultural Society forty years. We have only missed one fair in these forty years, and that was last year. But we have resuscitated our fair, and we will go on again. I could not be content to think that our fair should go out of existence. There is a great deal to be gained from the fall fair. There are many people that I meet

at our fall fairs through my district that it seems it is impossible to meet anywhere else. I go to the fall fairs and I meet men there annually, and I never see them again until the next fall fair; but we are all there on the day of the fall fair with flying colours, and with a hearty handshake and a God-speed you, and we spend a good day together, encouraging each other,

I remember the little old hall where we used to be packed like sardines for a few days, looking at the vegetables and grain and ladies' work—and I must say we have in our country ladies who can do fancy work equal to any in Toronto. We thought it was too small and that we ought to get into larger quarters, and we built a much more commodious hall and contracted several thousand of dollars of indebtedness thereby. It seemed to me that we were getting along fine for a few years, but the township fairs began to spring up all around us. We had only about three fairs at that time, and now have sixteen or eighteen, because every little community wants its fall fair and they should have them. We found that we could not pay off the mortgage, and this mortgage began to grow, and the interest to pile up, because of the compounding of it, and we came to a point where something had to be done. The town of Parry Sound has taken over our grounds and our hall. It is there as a monument for our society, where we hope to go year after year for a good many years to come and hold our fall fairs.

SCHOOL FAIRS IN CONJUNCTION WITH AGRICULTURAL SOCIETIES.

Col. J. J. Craig, Fergus.

I believe in the teaching of agriculture in our schools, and in the pupils taking part in competitions, but I advocate the teaching along cultural and not vocational lines. I realize the importance of agriculture, and submit that some instruction on this should be given to our boys and girls. I, however, see no reason why school fairs cannot be efficiently conducted in connection with township and district agricultural societies. I can see no educational value in harnessing a horse or showing bacon hogs, etc., at a school fair. I think there are certain difficulties. First, the prize list, especially in our county, can be improved; secondly, the dates frequently conflict with those of the agricultural society; thirdly, I believe that there is excessive amusement and valuable time taken from school studies to prepare for the school fair. There are too many drills and too much singing. There is too much time spent on things that are not important. I believe in singing and music in the schools to a certain extent, but I do not believe in any of these things to excess.

If I were asked to convey in one word the principle which underlies the strength of our public institutions, and the safeguard of public and private safety, that one word would be honesty,—honesty in our homes, honesty in high places, honesty in low places, honesty as the guiding motives of our conduct. Now I have a suspicion that these fairs are not conducted as honestly as they might be. I could not get to all the fairs last fall, but they tell me that in one of the townships the school fair in the matter of vegetables was a better fair than the township fair. They were held about two miles apart. Where did these children's vegetables come from? They certainly did not come from a school garden. I have twenty-three school gardens. The rest of them are home products. Now it is a physical impossibility for the school inspector to visit all those gardens. I never saw one of them that excelled the plots. I want the school

garden at hand where you can see it. I know these vegetables do not come from school gardens or school plots, because I saw them both.

More than that I saw a concrete case right at home, which was unfair. The young lady, a capable woman who excelled in drawing, had her drawing at the school fair. The other teachers in the township protested. They said that drawing was not done by the pupils. She submits still it was the work of her pupils. Now it was a most cruel thing to throw it out if it was the work of her pupils; if it was not the work of her pupils, then it should have been investigated further and she should not have been allowed to teach school further.

Talking from an educational standpoint, we give free entrance, the secretary of my society sends to me, and I give him the whole roll of every school within ten miles, and he sends them free tickets. Now they lose two days, they lose the day of their school fair and they lose the day of the fall fair because they all get free tickets, and of course every child within a radius of ten miles comes. We want to be able to do some work in this great world of ours. School fairs, if properly conducted, do a splendid work.

MR. BROCK took objection to the statement of Col. Craig's remarks regarding harnessing horses, showing of bacon hogs, etc. I believe, said Mr. Brock, that the rest of the farmers in this room will bear me out in saying that a boy of ten years old on a farm is not safe if he does not know how to halter a horse, and those school fairs so far as I can understand are along educational lines, and we want to educate boys for the farm. We want to educate our boys to take our farms and eventually represent us in the House of Commons. Now there is nothing too good for a boy to learn, but if he is going to be a good farmer he must understand how to take care of stock. I have been in the cattle business since I was old enough to do business, and I have seen thousands of stock ruined because the man did not know how to bring them to the yards. One feature that should be impressed upon the boys on the farm is how to handle stock properly without abusing them. I quite agree with the rest of the Colonel's address.

J. F. AULT: The Colonel claims that there is not any educational value in a boy learning to halter a colt. I would have to take issue there; I believe there is, and also in a boy harnessing a horse properly. These are two things we want to teach our boys and our girls as well to-day. I find on this prize list, handed me by Col. Craig, that they have given prizes for different kinds of grains; they have also given prizes for different kinds of flowers, and I want to say here that there was a time in the history of this country that we thought that the raising of flowers belonged to the ladies. That day, I am glad to say, has gone by. It is also a man's job, and I am very glad it is. Now I find here a little farther on that they give prizes for poultry. That has got to be a very live question to-day. Now we have here on this splendid list, public speaking contests—that is an education. Could you get anything better than that? Then we have girls' hemming class. That is good.

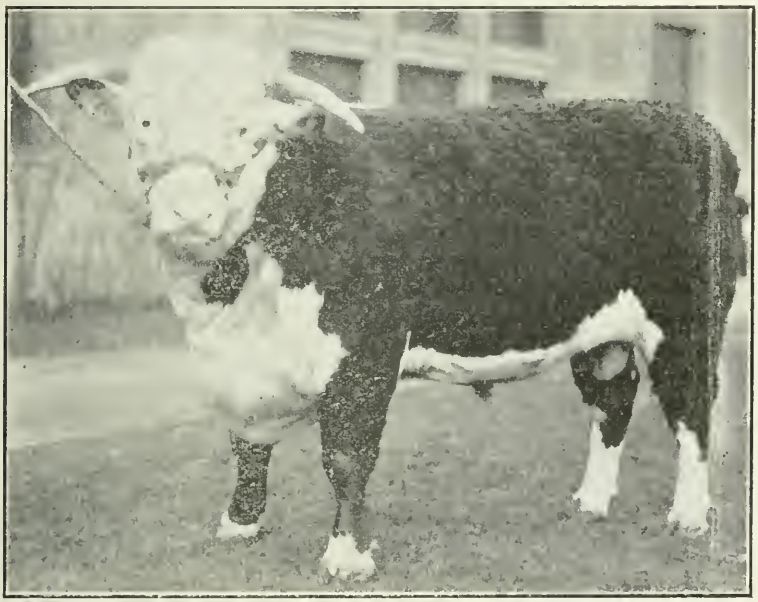
I would have to take objection to the remarks of the Colonel when he said that he did not think it highly proper and right to have swine and this kind of stuff at the school fairs. I think that is just the place to have them. We old fellows are going to be out of the road after a while, and we will have our boys and girls following after us and making better men and better women than we are. And I hope they will, too.

The most of you, I think, here to-day have been attending these conventions a number of years. You know my position on the question of school fairs being linked up with agricultural societies. I believe it is one of the best steps that

any agricultural society can take. We have proved it in our society. There is so much to be said that we have not time to say it all, but conditions have changed. I can remember the time when people came to our fairs with a horse and rig and we had an all-day visit. To-day they get their lunch at home and come in with their cars. They go to the big centres and we have got to get something that is going to attract our farmers and farmers' boys and girls to the fairs.

We take the first day of our fair for our boys' and girls' school fair and we have been giving them a cup for the best display of flowers, swine and horses, and all that kind of stuff, and we found it has worked out splendidly.

G. W. McIndoo, Peterborough: I think that the school fair is one of the best institutions that was ever inaugurated. It is a fathers' and mothers' and boys' and girls' day. They all go together in the car, and they see the possibilities



Two-year-old Hereford Bull.

for the boy and girl. We have the boys at our school fairs enter the judging competition. Surely this is one of the best educational institutions that ever was inaugurated.

Wm. Graham, Blyth: We have run our school with our fall fair for the last two years. Now we have $302 in the treasury, and we gave $40 more grant to our school fairs last year. We put on this year a speaking contest.

Mr. Shaver, Metcalfe: I happen to belong to a township that has put on the best agricultural fair in Eastern Ontario. We have a splendid school fair. That school fair would be 100 per cent. more efficient in my opinion if it were not held in conjunction with our township fair. The Colonel has spoken about dishonesty. I wonder how much dishonesty we have in our township fair? We know how many horses are brought in which don't belong to the exhibitor. I know how many different entries of poultry have been entered where the poultry did not belong to the exhibitor at all. But the trouble is, if there is dishonesty, it is dishonesty in the home. We are all, I suppose, agreed that no greater

educational factor can possibly be had than the school fair, from an agricultural standpoint. Denmark stands where it is to-day because agriculture is the essential in the school programme. It ought to be in the Province of Ontario. In the township fair, the boys and girls bring their exhibits to the school fair, and instead of being on hand when the judging is going on and getting some benefit from the educational side of it, they are down on the midway or viewing something of interest to them in another part of the grounds. I believe, after having had a considerable number of years' experience, that the school fair ought to be held altogether separate from anything else on that particular day it is being held. Until that is done the school fair cannot possibly do the work it ought to do.

H. A. Cormack, Arthur: I cannot agree with Col. Craig in his sentiments regarding bringing stock to the school fairs, because the school fairs are feeders for the agricultural fair, and the agricultural fair are feeders for the Canadian National. The boys must get a start, and they get their start at the school fair. I am satisfied also that 75 or 80 per cent. of the vegetables at the displays at the school fairs are grown in school gardens.

Mr. Anderson, Mountain: Why was the school fair instituted if it was not for the boys and girls of this country? The only reason some are asking for the linking up of school fairs with the county fair is to swell their gate receipts. I think the school fair is one of the greatest institutions ever instituted in the Province of Ontario. I believe if they were asked in Mountain whether to do away with the school fair or the agricultural society fair, they would say do away with the agricultural society. We have a prize list similar to the one that my friend just read out, and the township gives $50 toward the school fair. If any wish to combine it with the township fair I have no quarrel with them, but do not try to force us to combine it just in order to swell your gate receipts. So far as dishonesty is concerned, I never knew there was so much dishonesty in this country. In our part of the country we are satisfied we get the actual product of the children at these fairs.

John Dunbar, South Perth: I agree with the last speaker when he said that the school fair is one of the greatest things we have ever had. But I do not agree with some of these other speakers who contend separating them from the agricultural societies. At St. Marys we linked it up with the society and it has been a grand success. Last year we had 300 children dressed in white and parading; this year we will have probably 500 parading. The children have their own department. We have special school prizes, and we have one common agricultural entry for all the schools within a given radius who exhibit at the school fairs. The Colonel objected to the boys and girls having to learn to harness horses. I might say that one of my little girls, thirteen years old, went out gainst three men in the saddle horse department and won a prize. I assure you that a children's department in connection with your agricultural society is a splendid thing.

R. J. Bushell: In Frontenac county each school has its fair separately during September. They get a grant from the township council to assist them in that line. Those that win awards at these respective individual school fairs are granted a lump sum by myself and directors of $300, to be divided among the school children that have already been awarded prizes at their school fairs. They come to the Kingston Industrial to size the thing up and see who is the winner. I find the school fair is quite a necessary adjunct in our Province to-day, and no matter who instituted the fair, much credit is due them because the boys and girls of to-day are the men and women of to-morrow who will carry on when we lay down our tools.

WM. HICKSON, Bobcaygeon: Is your children's department kept separate from the fall fair exhibits?

MR. DUNBAR: Entirely separate.

L. J. C. BULL: One of the greatest handicaps we have to contend with to-day is the multiplicity of organizations. In our own town we have the different churches with their leagues and their Tuxis boys, and the public schools and high schools with their fraternities and societies, and these all take them away from school; then a day for the school fair and a day for the fall fair. The more we unite these organizations the better it will be. It will take less time and do away with so much overlapping.

COL. CRAIG: I agree with Mr. Bull. The point is this: I am not opposed to agriculture; I am not opposed to school fairs; but I am opposed to them as separate bodies. I am thoroughly in favour of consolidation. I believe that the consolidated school is going to be the solution of the education of our rural children.

SHOULD AGRICULTURAL SOCIETIES OFFER PRIZES AT LOCAL PLOWING MATCHES?

JAMES MCLEAN, RICHMOND HILL.

Over fifty years ago grants were given by the Ontario Government to agricultural societies for the purpose of organizing and promoting plowing matches in various agricultural districts. After a time interest died out, and plowing matches were not held until about twelve or fifteen years ago, when farmers began again to realize the benefits which could be derived from proper tillage of the soil. In order to prove that land properly cultivated would increase the production of field crops, a number of progressive agriculturists held a preliminary meeting at Richmond Hill, as a result of which the Ontario Plowmen's Association was organized. In the initial stages we organized a few branches throughout the province and distributed the small grant donated by the Department of Agriculture to each, in proportion to its membership, and the amount expended on prizes. This interest in various branches developed from time to time, and these local contests became so keen that a competition was arranged among the prizewinners of each branch organization in their various classes.

At the annual meeting about ten years ago, the Association decided to hold provincial matches, where the prizewinners in the local competitions would have the opportunity of competing for the large prizes and sweepstakes trophies that were offered. The first match was held by the Central Association on Sunny Brook Farm, the property of Major Kilgour, where a few plowmen and a number of interested spectators assembled and were courteously entertained by Mr. and Mrs. Kilgour. At this first provincial match but one twentieth century power machine appeared, and this first tractor was looked upon as was Stephenson's first railway locomotive. Much doubt was then expressed as to the value of this new farm machine; but mark the change that has occurred in the passing years. At our recent demonstrations, upwards of half a hundred of these machines were in operation, and the work done by them proved for a certainty that these power machines, improved as they are from time to time by the inventive genius of implement manufacturers, are proving, and will continue to prove, a valuable asset to the farmers of Canada. Each year it has been noted that a number of unsuitable machines are being eliminated, and only the up-to-date ones survive the test of time. Here is where, in my judgment, lies the value of what is now called the International Plowing Match, Tractor and Farm Machinery Demon-

stration. Here machines are in operation side by side, and the farmer can judge for himself the ones best suited to his particular soil and conditions. At this demonstration there are placed on exhibition all appliances used on Canadian farms and in Canadian farm homes, and the manufacturer who fails to exhibit his machines at our great annual demonstration, where 50,000 farmers congregate for the purpose of selecting and deciding for themselves the different machines and appliances required by them, are standing in the way of their own interests. The farmers meet here for a definite purpose and there are no midways, no wheels of fortune, no sideshows to divert their attention from the objects they have in view. The marvellous growth of our demonstration is shown by increasing exhibits and attendance from year to year. Think of the splendid sight it is to see one hundred plowboys gripping the handles of their plows and driving the

Southdown Wether showing good mutton type.

straightest furrows ever made. Not only are the furrows straight, but the turning, setting up and packing so necessary for a good seed bed is carefully done. Substantial prizes are offered for the finest teams and equipment. Here comes in one connecting link between the agricultural society and the plowmen's association, for the prizewinning teams at your fair stand a good chance of being successful in winning the trophies offered for the best team and equipment at the plowing match. I take it that there is a community of interest between the agricultural society and the plowmen's association.

For some years I have had the pleasure of judging at the plowing matches as well as in the field crop competitions throughout the province, and I have found without exception that the first-class plowman was the man who had first-rate field crops; and that the management of his farm and the improvement in

the various classes of stock showed that he was not satisfied with the ordinary, common, unprogressive, old-time methods of farming, but was ready to adopt any suggestions that may be advanced by the Department of Agriculture, such as stock-grading, planting new, recommended varieties of grain and roots, getting rid of scrub cattle and breeding only pure-bred stock.

If the directors of the various fairs and exhibitions throughout the province would try to promote the organization of branch associations of the Ontario Plowmen's Association in connection with their fairs or otherwise, I am sure that no agricultural society would have to drop out of the field-crop competitions because they could not get sufficient entries; because the number of entries would be doubled at least.

In order to prove to you that co-operation and promotion by the agricultural societies in connection with the establishment of branch organizations of the Ontario Plowmen's Association would be a decided benefit not only to the individual farmer, but to the agricultural society and district, and also to the province, let me cite one particular example:

The sons of Jacob Lerch, near Preston, entered in the junior farmers' plowing match; then they entered in the local one and won; this left them eligible to enter the provincial match, where they were again winners. Their training under the junior farmers and their success as plowmen made them anxious not only to compete in field-crop competitions, but also in live stock at their local fair. They were prizewinners at the various local exhibitions; then they exhibited their stock at the Canadian National Exhibition, and the Guelph and Ottawa Winter Fairs, where they were successful, and at the great Royal Winter Fair where entries were received from all parts of the United States, as well as from the Canadian provinces, they were again among the winners.

In my own district, where plowing matches have been conducted for over sixty years, our champion plowmen have won the gold medals and also the silver medals for the best conducted and best managed farms in the province. I refer to the late Simpson Rennie, the late William Rennie, and the late David Smellie. This goes to show that men who have achieved success at plowing a straight furrow have been the leaders in all agricultural lines in their districts. And one of our champion men at the provincial match in the person of Clark Young, Miliken, was a prizewinner in judging live stock with the junior farmers, prizewinner at his local plowing matches and first-prize winner several times in your field-crop competitions. His Clydesdales have won not only locally but also at the Canadian National Exhibition and Winter Fairs.

I have endeavoured to prove to you the benefits and necessity of plowmen's organizations in connection with agricultural societies. I would like to emphasize the fact that the members of the various plowmen's associations have promoted the establishment among the junior farmers of classes in judging stock as well as plowing. The King and Vaughan Association, for instance, have encouraged juniors to place the awards before the senior judges have made their decisions, and then the judges have shown them where the fault lay if their awards differed from those of their seniors. This has developed a keen interest not only in the one branch of farming, but in all departments.

I feel assured that the agricultural societies will see the need, and will be only too anxious to aid in the establishment of local plowmen's associations; and, in order to foster interest in this important branch of agriculture, I suggest that the agricultural society offer prizes at the local matches. I know that this will not merely encourage entries in the plowing competition, but will encourage greater interest and more entries in the field-crop competitions and live-stock

exhibits at local fairs. The two organizations working together cannot fail to make for better crops, improved live stock and a larger entry list at the local exhibitions. And the easiest and most tangible means of co-operation would be for the agricultural societies to offer prizes at the local plowing matches.

FRED LITTLEJOHNS, Highgate: In attempting to open a discussion on this subject so comprehensively dealt with by Mr. McLean, whom you all know as an ardent and expert plowman, I do so from the position of the business man who is in constant touch and relationship with the farmer, and sees and knows of his successes and reverses.

It is not my purpose to speak adversely on the matter of offering prizes by agricultural societies for plowing matches, but rather I would offer a few words in favour of the suggestion.

The Department of Agriculture encourages the plowmen's association by a grant from the Provincial Treasury, and also encourages the holding of plowing matches under the supervision of our agricultural societies, by permitting the amounts paid for prize money in plowing matches to be included, the same as your usual prize moneys, in the items under the heading of Expenditure for Agricultural Purposes whereon your annual grants are based.

If we are doing good and accomplishing something worth while in the course we are at the present pursuing, but have not adopted the Plowing Match as a part of the Societies' work, can we not now put forth an extra effort and include that branch of Agricultural Art and extend our prize moneys to the plowman in addition to the stockman, dairyman, mechanic and artisan whom you now patronize?

The interest of the people in the Provincial Plowing Matches is growing, for in the year 1913 approximately 1,500 farmers were in attendance. In 1915 the number had increased to 4,000, and a year later it is said that 20,000 people were present and we have had reports of an attendance of at least 30,000 at some of the later plowing matches.

Under these conditions, and with the moral support of the public, would it not be good business for the agricultural societies of this Province to inaugurate in every County, and in every Township, plowing matches which if carefully managed and financed would in a short time be of inestimable value to the Province as a whole and to the agricultural interests in particular?

The financing of our societies is one of the major problems with which we have to contend, and more particularly applies to the society striving to carry on a purely agricultural fair in its truest sense, and also to the small township fair which has not sufficient land to construct a race track or engage a circus.

I am not opposed to horse racing or a keenly contested trial of speed, as we are instructed to call them, for it is one of the pleasures of a majority of the people of this Province; but what I do oppose and decry is the bookmaking and the resultant evil of that form of gambling which is one of the attendants of some of the fall fair race tracks.

My observations of the past ten or twelve years has led me to believe that the greatest drawing card of the smaller fall fairs is the race track, and that a great many people who attend these fairs park their cars beside the track and stay there until it is time to go home.

No doubt it is more comfortable to sit in your car and let the afternoon drift away, but to my mind these people are missing the real fair, and it is a wonder why they disregard the splendid exhibits of the live stock breeder, the products of the field, dairy and home, and that all these things which help to make a country great and prosperous are apparently of little interest to them.

However, we are not here to attempt to reform the supposed wanderings of our fellow man, but rather to speak in favour of extending our Societies' usefulness to what may be considered of primal importance to the agriculturist.

The success of the agricultural population of a country depends, in a great degree, upon the fertility of the soil, and to a greater extent upon the care and cultivation of that soil; so that if we take our first steps in that cultivation, the plowing, and do it in an able and workmanlike manner, and continue our labour thus begun with the same thoroughness and thought, we will attain results worth while.

The careless workman will as a rule perform his work in keeping with his state of mind, and the cultivation of our lands if carried on in an untidy and slovenly manner will lead to disastrous results.

Having established reasonable premises for a good plowman, let us do something to make him a feature and a factor of our fall fairs.

The plowman who takes honest pride in doing good work with his plow, and finishes his field with the same care and thoroughness as he began, is the man we have in mind as the advance agent of good cultivation, which, beginning at the plow, will no doubt be good cultivation carried out in all of the succeeding processes.

The result of this good cultivation means greater yields in all lines; and while you say the greater the yield the smaller the return per bushel, yet you have in your own hands the opportunity of producing greater yields from smaller acreage by better cultivation than has the man who sows a large acreage, with slovenly methods and seed as good as the seed you sow. Indeed his seed may be of the best, but if his cultivation is not thorough and timely he will not achieve the results of the man who does.

The top soil of our farms is for the production of plant life, and if we till it properly and sow good seeds and care for and cultivate it thoroughly, we may have a bumper crop or a fair crop, or, on account of extreme weather conditions we may have no crop at all; but we have the supreme satisfaction of knowing we did all we humanly could to make it a success. On the other hand the man who does all his work in the careless, slipshod manner, may have a medium or light crop of grain, but he surely will have an abundant crop of those noxious weeds which are a menace to farming and a disgrace to the community.

We see it very pointedly and pronounced in our Field Crop competitions from year to year, and I know from personal observation, that these Field Crop competitions have been the means of educating many farmers who were considered good farmers even before they entered these competitions, to better methods of cultivation and seed selection than they employed formerly.

May we not then under such circumstances hope for as great or even greater results, if we adopt the suggestions of Mr. McLean, and offer prizes at local plowing matches by our agricultural societies.

I now leave the matter for the consideration of this Convention, and hope in the near future we will be able to publish in our prize lists, suitable prizes for competition at local plowing matches.

A WOMAN'S INTEREST IN FAIR WORK.

Ethel M. Chapman, Assistant Superintendent, Women's Institutes of Ontario.

My earliest impressions of a woman's interest in fair work, were governed by a marvellous and dazzling silk quilt, pieced together in what is well known as the log-cabin pattern. I believe there were 13,560 pieces of silk in that quilt, and I remember hearing many times that the stitches were finer than the finest machine work. I wasn't so much concerned about that, but I was interested in the quilt as a whole. I looked for it every time the fair day came around and I was never disappointed. It always hung on a clothes line stretched across the back of the hall—a mass of colour as vivid as a sunset, and just as sure to be there—indeed a great deal surer, because as I remember, it always rained on our fair day. I thought this quilt was beautiful then, and now I know that it was. I think every fair association should buy up such a quilt, if it is possible to find one in the neighbourhood, and hang it in the hall each year as a relic of many years' showing, and a part of the decoration. Where the fair work quilt fails as a competitive exhibit, is that the real object of a fair is to be educational (and of course entertaining), and I do not believe it is in keeping with present day standards to influence more people to make long cabin quilts.

Considering first the exhibits in which women are primarily interested—the household exhibits or features classed as "women's work". If the purpose of fair exhibits is to give a working idea of desirable standards, through showing the qualities that make for excellence, and to interest the public in certain household products, then perhaps in planning our prize lists we might take more thought for real quality, and practicability in the class of exhibits. Perhaps the log cabin silk quilt might be replaced by a wool "tie down" comforter. Some of the classes of fancy drawn work and "the best eyelet embroidery" might be given up for good and attractive types of house dresses, or for little dresses and suits for children, with consideration given to simplicity, attractiveness, durability and economy.

Introduce New Classes.

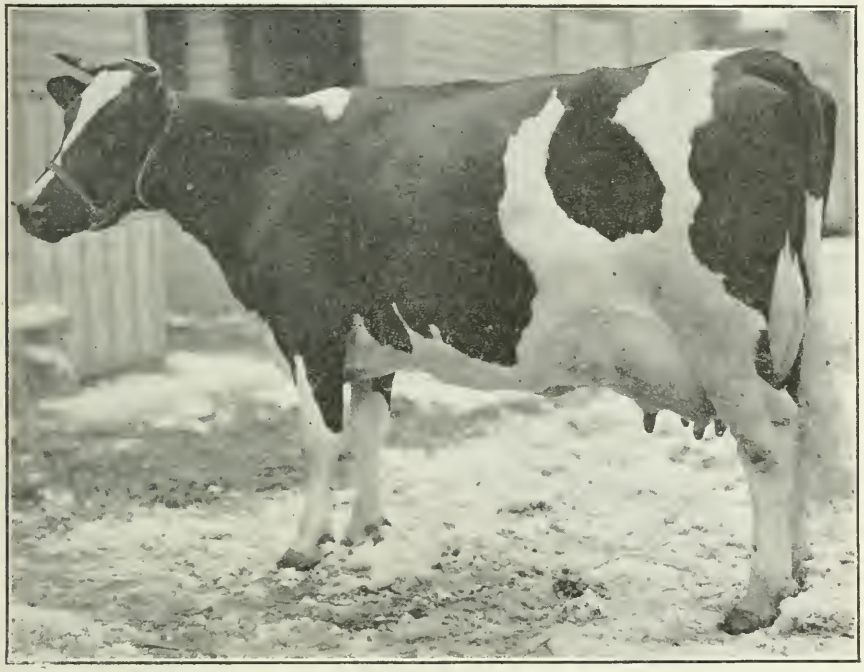
In our food products, we might perhaps give more attention to such things as home canned foods, including meat, chicken, and vegetables; in the case of canned goods as in bread, requiring that the exhibits be entered in duplicate, so that the judge may open one jar of fruit or cut one loaf of bread, leaving the other intact. Frequently the donor of the prize "retains" the article, and if the top of the fruit jar has been disturbed the fruit is likely to be in an almost intoxicatable condition before he gets it home. It is also a matter of interest to women interested in pure food, that stipulation be made that no artificial colouring matter or preservative be used in canned goods.

It would be a further matter of education, if a few prizes be offered for, say, a plain cake or a loaf of whole wheat bread in which the recipe would be shown with the article. Exhibitors might not care to give out their close secrets, but the women visitors to the fair would profit greatly. It always adds interest too, from a woman's view point, if a few novel classes be introduced each year. I have in mind such things as an exhibit of a table centre decoration, for instance; it is not difficult to imagine the general attraction of a long table with a Thanksgiving decoration of grapes and apples in a small pumpkin shell basket, garnished

with autumn leaves, or a Christmas centre of pine cones holding red candles or even a St. Patrick's candlebra made of a pot of shamrock piled around with potatoes each holding a green candle.

I know the men on fair boards must get a lot of original suggestions from their wives, but I believe if we had more of these wives as members of fair boards, we would see the breath of life breathed into some of our old prize lists where the women's department has remained unchanged since the days when women were making hair wreaths and Battenburg lace.

We might also find then more fairs where the needlework is shown against a dark background, and the food exhibits against a white background, and where the cookery would be protected—not necessarily under glass, which is expensive, but at least in a show case of fly screening.



Holstein showing typical dairy type.

For the purposes of both education and new interest, we might include among our household exhibits a prize for the best home-made labour saver, not to exceed a certain cost—a class where home-interested men and women could show such things as a home-made fireless cooker or a model of a dumb waiter or a self-supporting ironing board. A good exhibit of this kind would be an unfailing attraction and of more practical benefit to the people in whose interest the fair is held than a booth advertising perfumes and wrinkle chasers.

Score Cards and Judging Demonstrations.

Regarding the educational value of the staple classes of women's work, I believe we lose a great deal by not making more use of the standards outlined in score cards. Of course, I know the experienced judge may not need to carry her score card around with her, but she should have it in her mind—and what

is quite as important as this, the exhibitor should have it. There is a great discrepancy in the minds of many women as to what contributes to excellence in a loaf of bread. One woman believes the supreme quality is lightness so she lets her loaves rise until they are overlight, and she wonders why another loaf takes the prize when it is not nearly so light as hers. Another woman likes her loaves to be very large, and her chief worry is that the crust may become too brown, so she takes the loaves from the oven before the inside of the loaf is sufficiently baked. Such defects as these might be overcome if every exhibitor knew that only fifteen points were allowed for appearance of the loaf (five points for the colour, five for the shape, five for the texture of the crust) that ten points were allowed for the texture of the crumb, ten for the lightness, ten for moisture, five for colour and fifty for flavour. The exhibitor should also know the standards followed in allotting these points—that good texture means full of small, even holes, silky in appearance; that in lightness the bread should be neither so heavy as to be solid nor so light as to be very dry; that the openings in the loaf should indicate that it had risen to about twice the bulk of the dough; that it should be slightly moist, elastic and rebounding when compressed; that the flavour should be nutty with no suggestion of sourness. Knowing something of the cost of printing, I know it would be out of the question to print these standards in full in prize lists, but a note might be made in the prize list that exhibitors could get score cards by writing the Superintendent of Fairs and Exhibitions. If a better understanding of what makes a good loaf of bread would improve the quality of bread in say fifty homes of the fair district, the fair would be doing a very practical piece of educational work.

Then a judging demonstration: What about having the judge of the household exhibits stay over for the second day of the fair and give a judging demonstration to those interested, in a special room or tent on the grounds? She would, of course, not use the fair exhibits in this demonstration; this would only invite controversy and might result in competitors arguing that her decisions were wrong. The best way to conduct a judging demonstration without heart burnings is for the judge to find her own samples, or to get one woman to make several samples varying in quality.

Girls' Judging Competitions and Demonstration Teams.

A judging demonstration might well be carried out in connection with a Girls' Judging Competition. These Girls' Judging Competitions are becoming very popular with girls' institutes and classes who have taken a short course in household science. They are conducted after the same fashion as a boys' competition in live stock or seed judging, the articles judged usually being staples in cookery and needlework. They use score cards and give their results in writing with reasons. It would be a very natural thing for a woman who judges their work to give a demonstration in judging at the close of the competition. A fair board interested in putting on a girls' judging competition might appeal to the women's institutes of the district to organize local teams and to see that they got some training for their work.

Girls' demonstration teams are also a great attraction at a fair. In fact, in parts of the United States where boys and girls club work is well advanced, their demonstrations seem to be one of the major features of the country fairs. We can scarcely overstress the value of practical demonstrations. Have you ever stopped to think why it is that no one ever passes Childs' Restaurant on Yonge street without seeing it? It is because they have a girl or man in the window making pancakes. A number of teams of girls at work can be made

much more interesting than this. I have a vivid picture in mind of twenty girls, five teams of four girls each, putting on canning demonstrations at a county fair in Ontario. They were arranged at long work tables in a tent given just to this feature, each team had a display of canned foods showing their own work, the girls were dressed in white uniforms with their team colours embroidered in their caps, and they worked with a skill and ease most delightful to watch. It is needless to say the tent was crowded during the entire demonstration. Instead of canning, the girls might give a demonstration in making bread or quick breads, but a canning demonstration is perhaps more interesting, and easier to carry out.

Displays by Women's Organizations.

From the standpoint of a woman's interest, much might be done by offering a special prize for the best educational exhibit put on by any woman's organization in the township or county. For instance, organizations like the women's institutes in rural districts are interested in hot school lunches. They might put on an exhibit of several school lunches with equipment for a hot lunch, and a demonstration preparing a hot dish. Another organization might show a display of meals for children from one to six years, following the diet charts of the Department of Health. Now that people are taking a certain interest in vitamines this might be the subject of a demonstration. I believe that a feature at one fair in Michigan last fall was a pyramid of vegetables, representing a quantity and variety that should be consumed by each member of the family during the year. A model kitchen, or an exhibit of labour savers might be shown by other groups. Some one might show a collection of prints of famous old pictures such as can be procured for schools or homes.

Hospital Boards.

Perhaps too, it would be a wise and kindly thing to offer space to the Institute for the Blind, and the Soldier's Civil Re-establishment, to show their work and to sell it.

Special Features of Interest to Women.

We might also make use of our Department of Health in putting on a Child Welfare exhibit in a hall or tent on the fair grounds. The Department has an exhibit of charts, moving pictures, slides and other equipment, which with scales for weighing babies, and with nurses in charge, should interest every mother attending the fair. In Western Ontario the Children's Memorial Hospital does the same thing. It might not keep up such a high tension of excitement as a baby show, but it would perhaps leave a better feeling among the majority of the people. A judge may place a man's driving horse or a woman's pumpkin pies down second or third or fifth and get away with it; but no one can judge babies and be considered fair by anyone except the winner of the first prize. It would be necessary to have a committee of women to assist in arranging and carrying out this feature.

A women's committee, or women working together in some way might do something to make the fair more hospitable to women and children. The Women's Institute at Lindsay last year carried through a very successful project in the way of a women's rest room. There are many fairs where nothing has yet been done along this line. In this and in many other ways, a woman or more than one, on a fair board might be the means of introducing new departures

of direct benefit. In one Ontario town the women had been looking around for a long time for a piece of ground to fit up as a park and athletic field, and there seemed to be no available place except the Fair Grounds—they wondered if they could lease a part of that for the purpose; it seemed a great waste of what might be a community blessing for two-thirds of the year, to keep it locked and barred from the public for all but two days. But the fair board could not see this point; perhaps they had reasons which the women could not appreciate. Anyway one woman said, "It's their one ewe lamb, and it looks as though they're going to cherish it." Yet we have an outstanding example of the advantages of a combination park and fair ground in the exhibition park and exhibition grounds of Toronto. As the shrubbery and plantings of the park grow they become an educational feature of the fair. But this one case goes to show that a woman's interest in fair work reaches beyond the frosted cakes and tatting. Perhaps it also indicates that women on a fair board might be troublesome—what is sometimes known as "difficult." They might. But there is another "difficult" fair board member, represented by the type of animal that plants its feet squarely and refuses to be moved in any direction. And women usually do bring with them a certain enthusiasm.

I know the features I have mentioned must seem very tame to anyone who likes a jazzy midway, but I believe that women in general, if they were members of fair boards, would use their influence to keep out some of the midway features that we could well do without. Anyway any self-respecting fair should be able to stir up enough excitement of its own without these things. And we could have a merry-go-round—no fair could be complete without that—and perhaps a moving picture show in a tent on the grounds. As you know, there is a moving picture machine being used by rural and small town organizations, in which government films may be used. Besides being an attraction for everyone, this should hold the class of visitors who are likely to miss the banished midway features—and of course the picture show will serve a double purpose if the day should be rainy. And there might be community singing on the grounds with a leader who would be something of a comedian—as we had on the Music Day at Toronto Exhibition last year. And of course there will be a good band—and to a rural-minded Canadian, there are few things more fitted to stir the soul to a live, fair-going humour than the sound of a band playing and cattle bawling at the same time.

W. J. Connelly, Cobden: I am unequal to do justice to that splendid address of Miss Chapman. Woman's interest in fair boards and fall fairs means a very great deal in bringing our work to a successful termination every year. You could not have a satisfactory dinner without women, and you would not have the men at a fair without a dinner, and in fact you would not have the men at a fair at all if the women were not there!

Women are fast coming to the front in agricultural work. The last two years we have had a number of women directors here. It has taken a lot of courage on the part of women to come and take part in a meeting like this, and to act on your fair boards. As Miss Chapman has said, a good many of the men get their information from their wives before they leave for the fair board. A good many of our boards have not got women on them yet, and I am sure it is a great mistake. In the first Garden of Agriculture—in Eden—on that board they were equally represented. And that is why I say it has taken a good deal of courage on the part of woman to again enter agriculture. She got an awful backset there, and it has taken thousands of years to have her come back. It took the most cruel war the world has ever fought to give woman her place. The

only thing the woman did, she spied the beautiful apple first, and I have often thought if Adam had gotten the apple first, he would have eaten the whole thing.

Miss Chapman spoke about having women on the fair board. I hope that every fall fair board has some women as directors, and if you have not got any see that some are elected at your next meeting. You do not often find women knockers, said Mr. Connelly. So, if you have any knockers on your fair board, better get rid of them and get some of our women, who never know what it is to knock, elected on your fair board, they will lift it up.

One of the main things about a fair is the ladies' department, which is along educational and entertainment lines, and of course you could not have education and entertainment without the ladies. It does not make so much difference about the midway if you have lots of ladies on the ground. There is something about women on a fair board, they all seem to bring with them, as it were, the gentle touch peculiar to women, which even in a meeting makes itself felt.

THE REGULAR STANDING FIELD CROP COMPETITIONS.

A. Findlay, Chatsworth.

Among the many industries agriculture plays the leading role. It will ever continue to do so for the very livelihood of the nations and sustenance of every people in the world must be produced from the soil.

Moreover the assured demand for its products makes it imperative that this industry goes on to perpetuity. It remains with man to so regulate his system of farming that future generations will be enabled to reap as plentifully, if not more bountifully than at the present.

At the outset it was stated that all food products and raw material for the building up of the nation came from the soil. It is evident, then, that the basis of agriculture is crop production. On this foundation has been and ever will be constructed the great live stock, dairying, bacon and poultry industries with the mighty establishments which manufacture the grain and live stock into the world's commercial commodities.

It is assuredly fitting that everything should be done to encourage crop production. The aims of the Field Crop Competitions are five fold.

1st. It induces a large number of farmers to use seed which is clean, plump and true to type.

2nd. It encourages competitors to exercise more care in drainage, proper cultivation and destruction of weeds.

3rd. It arouses friendly, competitive rivalry.

4th. It creates greater pride in our industry; and lastly, it is intended to produce a large supply of seed which is much superior to the average used on Ontario farms.

Speaking generally, it is to be regretted there is not a greater value placed on good seed. Nearly everywhere seed is sown, which has not been properly cleaned and is not of the highest vitality. Some is sown just as it comes from the threshing machine which means that one third of this is comprised of small grains, hulls, dirt and weed seeds, thus filling the field and using up its fertility, where alone good stalks of grain should be produced. Every agricultural paper is filled with timely suggestions regarding cleaning of seed grain, and yet how

often is this advice disregarded. With this condition prevailing, the land has become more seriously infested with noxious weeds, which in the years to come will be difficult to eradicate. Many of these are unknown to the average farmer. All competitors, however, are told (or at least should be told) by the judge of the different kinds of weeds in their fields and shown wherein their field or farm could be improved by draining, etc.

The resultant advantage to the farmer is inestimable. It reflects itself upon the general community in a more intensive and successful type of farming which creates pride and stimulates love of friendly competition which held the young men to the farms of Ontario a generation ago. This competitive spirit has within certain limits been lost, hence the steady flow of young men and women to urban centres. Surpassing all this in importance is the large supply of seed that is made available to Canadian farmers. Every prize-winning entry at the fall fairs is sought after by farmers. The premium received over market value is usually sufficient to pay for any trouble or expense involved in entering the competition. Many farmers could sell much more of their seed if they could spare the grain which they now require for feeding purposes, but even here the farmer reaps the benefit because of the better feeding value of his clean, plump grain. Weed seeds, generally speaking, do not increase the flow of milk or add many additional pounds of flesh to stockers or bacon hogs.

One big feature which has been overlooked in the past deserves the most careful consideration. This work cannot stand still; it must go forward or a retrograde movement will inevitably set in. There is a bigger field untouched but without doubt the greatest. The twentieth century and young manhood go hand in hand. The energy, vitality and aggressiveness of the junior farmers should be harnessed. They will enjoy the honour and be proud of the recognition given them by an organization of older men.

Why should our agricultural societies not be their directors? The plan is this: Let the directors at their annual meeting set aside a certain amount of money to be used for the purchase of seed. Offer free of charge sufficient seed for the seeding of one acre of ground to any boy under 21 years of age who has never entered any competition or exhibited heretofore. Have it thoroughly agreed that for every bushel given him, two bushels must be returned as an entry at the fall fair, this to become the property of the agricultural society. The society could then sell it and realize all it had expended in the Spring.

Herein have been given a few observations on the Field Crop competitions. The subject has not been exhausted by any means, but rather just a few of the essential things mentioned. The junior farmer, our greatest asset, will be given an opportunity to prove his capabilities by the last suggestion. To them in the passing years we must hand the torch we are now carrying. In the meantime, our duty is to assist them in every way to carry on the work that the older farmers of Canada have been engaged in for over a hundred years in an endeavour to produce the finest horses, cattle, sheep and swine, and last, but not least, great waving fields of golden grain for the sustenance of the nations, and it is up to us as directors of our great organization to do our part in attaining those desired standards in all that goes to make a happy, prosperous and contended people.

COMBINED FIELD CROP COMPETITIONS.

L. H. Newman, Ottawa.

I am very glad to have the opportunity of saying something in connection with this new form of Field Crop Competition. Mr. Findlay has given you some idea of the original Standing Field Crop Competition. The part allotted to me is to deal briefly with the newer form of competition known as the Combined Field Crop and Threshed Grain Competition. It might be well to pause for a moment to review the needs of the Province of Ontario as regards the seed grain and potatoes each Spring. You will find that we require approximately 11,500,000 bushels to sow our common cereals, corn and potatoes. We all know that the best seed is not always used. In fact investigations that have been carried on by the Dominion Seed Branch and other organizations have shown the condition of the seed on the average to be much below what it

Splendid Vegetable Exhibit at the Royal Agricultural Winter Fair.

should be as regards purity of variety, suitability of variety, freedom from weed seeds, and vitality or ability to grow. The reasons why more good seed is not used each year are roughly these: There is not always an appreciation of what seed of the right variety really is; in the second place we find a tendency among farmers to take a chance, to flirt, as it were, with nature; and in the third place, we find it is not always easy for farmers to obtain the kind of seed they would like to get, and particularly at the price they are willing to pay for it. And one feels almost sympathetic in this regard toward the farmer who is not any too well supplied with loose change to take a chance. But at the same time, if we will look into the matter a little, we can very easily show that it is rather a dangerous practice to take a chance with the seed we are sowing.

During the past twenty-five years or more there have been quite a number of agencies at work in this province to encourage the greater use of better seed on Ontario farms. We have our splendid institution at Guelph, the Ontario Agricultural College, with its sister organization, or offspring, the Experimental

Union—we have the work being done by the Dominion Experimental Farm at Ottawa; we have the Seed Fairs, which organization developed into the Standing Field Crop Competitions, and later a further development in what we call the Combined Standing Field Crop and Threshed Grain Competition.

While it is not my duty to speak about the ordinary Standing Field Crop Competition, I would like to at this time pay tribute to the work that those organizations have performed in this Province. I have been associated rather closely with Mr. Wilson in working out some of the details in connection with those competitions, and have followed their work throughout the province, and have had an opportunity of seeing actually the work that is being accomplished in different districts through those organizations; and while we cannot agree that they are perfect, yet we must admit that they have done a great deal of good work, and they can be perfected. There are places where the new form of competition would perhaps not be workable, and where the original form of competition should go on. There has been an inclination on the part of some to be discouraged and say that the Ordinary Field Crop Competition has outlived its usefulness. I do not agree with these. I think this form of competition has only touched the fringe, so to speak; many societies have not taken them up at all yet. There are some places where the quality of seed could not be produced in quantity; perhaps the farm may be too dirty, and here the Standing Crop can demonstrate what good seed can do. The main object of the original form of competition is to provide these demonstrations on the one hand, and on the other to provide sources of good seed, easily available for farmers in the community. As I said before, the results of this form of competition have been fairly good; but there are certain serious disadvantages or weaknesses in connection with the ordinary competition. In the first place, there is not enough attention paid to choice of variety and to the breeding, so to speak, of the seed used. There are a great many different varieties now in this country of oats and wheat and other grains, potatoes and corn, and we know there are great differences in these varieties in respect to their ability to produce paying yields. In grains, some varieties fall down very easily; some are susceptible to rust, others again are more resistant. There are a great variety of differences between these varieties which make it very important that a careful study of these varieties be made. Our experimental stations are trying to help you choose the varieties which will give the best results, although even results obtained in these institutions, which must of necessity be few in number, cannot always be taken as final, as it is important that local trials of the few outstanding varieties be made before you can determine the variety most suited for your own particular locality.

As a rule, also, these ordinary competitions do not provide a sufficient quantity of seed of one variety to make up carload lots for commercial purposes, because in the ordinary competition, according to the rules at present, the various competitors can grow the variety that they wish, and as a result we find quite a number of different varieties grown in the same competition.

And there is another objection, that it is rather difficult to judge in a competition where you have a lot of different varieties, and it is difficult to make a really fair award in the ordinary competition, because as you know perfectly well, when a judge comes into the society to examine those fields, he will find some that are fully ripe, others not quite so ripe, and some that are not very promising but which later through a combination of circumstances come on and make a really good crop. Furthermore, there are men who often, through no fault of their own, have land which is rather dirty, men who come newly on to

farms—they get the very best and purest variety to sow on that land, perhaps enter into the Field Crop Competition. The judge comes along and he finds a lot of weeds, the seeds of which can be removed by proper cleaning. He is very seriously handicapped, however, and the chances are that he will not receive a prize because he is growing this grain on dirty land. If he is the right kind of man he will be able to clean up that grain. He will be able to let that grain mature thoroughly so as to produce the best quality of seed and perhaps produce a thoroughly good and excellent sample. Now in the ordinary competition he would perhaps have been eliminated, and not have received any prize money whatever; but in the other competition, where the award is based not only on the judgment in the field but on clean grain, etc., he has a fair opportunity to demonstrate his skill and of winning a prize, and I have often observed that men working under those conditions are very frequently the most deserving.

One of the functions of these competitions is to help those who are worthy of encouragement.

As a means of overcoming those difficulties, the Combined Crop Competition was instituted a few years ago. The idea in connection with this form of competition has taken hold rather strongly in the Province. It is a tribute to the men who had it in their power to encourage their societies to engage in a progressive form of competition. It shows that they were thinking men, and realized that in connection with this new form of competition there were more good points, more worthy points, more points worthy of encouragement than were to be found in connection with the original form. We must not forget, however, that as I have said before, there are places where this new form of competition perhaps is not worthy of the same encouragement as in other places. But I was glad to note there were so many good places in Ontario where this new competition could be encouraged and where it has come on so successfully.

The rules of the new competition were discussed last year by Mr. Lennox, and will be found in this report for 1922, and I will not go into them now, other than simply to repeat two or three of the main rules, namely: each competitor is required to sow the same variety of seed; he is also required to sow registered seed of that variety where he can get it.

The methods followed in connection with these competitions need not be gone into here, because they were discussed last year. The Seed Growers' Association, with which I have been identified for the last twenty years, has been particularly interested in this new form of competition, because of the following facts: In the first place, we are being asked continually by growers, by prospective buyers in Canada and the United States as to where they can obtain certain seed varieties in carload lots. The other day I had enquiry for 40,000 bushels of seed oats from a concern in the United States. Over there we find a great deal of interest in northern grown seed. That interest has been stimulated a great deal during the past two or three years as a result of our winnings in Chicago. You will be interested to know that at the International Show at Chicago this year, where Canadians were in competition with the best growers of the United States, we won out in practically all classes, with four American judges and one Canadian. I was the Canadian judge. In the Hard Red Spring wheat section there were 94 entries with 25 prizes. We succeeded in winning 19 out of the 25, including the grand championship of North America.

In oats, there were 35 prizes offered; there were a very large number of exhibits. Out of the 35, members of this association won 24, including the grand championship, with a sample weighing 46.5 to the bushel. Those which won prizes were grown almost entirely from registered seed.

In barley and fall rye we won first place also. In peas we won the first four prizes.

In alfalfa seed we made a good showing also. We got 3rd, 5th and 6th. So you will agree we did remarkably well down there with our exhibits, which were very well labelled so as to give us the maximum amount of publicity. Those winnings have caused a great deal of advertising of Canada, and as a result we are receiving large orders from the United States for our products. Therefore our association is interested in this combined form of competition, because we regard it as the logical step toward establishing properly organized seed producing centres. We believe that it is to be expected that these competitions should help to locate districts in which first-class seed can be produced and districts where first-class growers can be located. Because, after all, a great deal depends on the individual growers themselves, and if all districts are manned with men of the right mentality or the right attitude toward these things so it will be easy to locate districts that we can depend on from year to year to produce good seed.

A problem which confronts a good many of the societies in connection with these competitions is that of having their seed cleaned up in time for the judges, and for the market. That is rather a serious difficulty, although I think it will gradually be met as time passes. There are various ways in which the problem may be solved. I find it is not wise to lay down a general rule governing various parts of the province, because people differ in different sections, and in some sections people are inclined to wish to clean up their own seed; there are other districts where they prefer to have someone clean it up for them. Others again prefer to have a travelling outfit come round and clean up their seed for them. In Quebec we have one society with 103 members. It started the first year with 40. I tried to get a carload of oats from that society. I offered them $1.50 a bushel for a carload. I could not get a bushel there because it was all bought up by the farmers who wanted to get into the competition, but above all wanted to get good seed because they had seen what good seed meant on their neighbours' farms.

The Provincial Minister of Agriculture for Quebec came to me last year, and said: "What in the world are we going to do with all this stuff? These men have no fanning mills." Knowing something of the mentality of these people, I suggested that he secure in some way or other a 29D Clipper Cleaner, put it on a sleigh, and get the best man whom he could find to go from farm to farm, cleaning up that seed, interviewing beforehand the farmers to see if they were willing to have it so cleaned. He adopted this plan, and all those 103 were able to have their seed cleaned up in good time and were able to dispose of the seed at a good premium on market prices. Those men bought their own outfit, and at the Toronto Fair I met this Quebec official, and he told me he was on his way to interview the Clipper people, to make arrangements to buy 25 similar machines. The Provincial Government at Quebec is assisting any agricultural society who will put in such an outfit by a substantial grant. It is getting what we want to get at, put up in good shape. If we are going to produce seed to sell to the market in carload lots, and that is really about the only way that we can make it go on account of freight rates, we have to put it up fairly early in the season, because people who retail that have to be sure of their supplies and must have it on the market in good time.

I returned from Edmonton last week, and the Government there has taken the initiative, because of the fact that the farmers are widely scattered and are not in the best of condition, financially speaking. The Government has recog-

nized the importance of the good seed question, and of assisting those people there who have produced good seed, by renting a building in the city of Edmonton and equipping it with a Monitor and high-class cylinder English machine for cleaning. They are going to do excellent work, and help those people get a start. It is their hope that before long the farmers themselves will, through a co-operative movement, take over this plant. They are hoping to demonstrate that this thing can be run as a paying proposition, and that it is worth while, and will bring to the province a good deal of valuable publicity.

The matter of marketing is still quite a problem in connection with all farm produce. We have heard a great deal of farming, co-operative marketing, etc., and a good deal of the central cleaning plant. Personally, I think the matter of greatest importance at the present moment is something of the nature of a central sales agency. So long as groups of farmers growing seed know that they are going to be able to sell their seed at a sufficient premium over market prices they will very soon proceed to adopt ways and means of having that seed produced. The great trouble at the present time is they do not know whether they will have a market for it or what price they will get for it, and they do not know whether they can install machinery to clean it. That is one of the difficulties that will sooner or later be overcome.

In Prince Edward Island we have quite a number of people growing certified seed potatoes. They formed a local organization. Last year they had some of their certified seed potatoes grown down in Virginia and Long Island. Those potatoes did so well there that they sold 60 carloads; this year they sold over 100 carloads at a substantial premium, almost double the price of commercial potatoes.

In the Province of Quebec they have a Co-Operative Seed Association with headquarters at St. Rosalie Jct., which is doing good work. The experiences in all these places are valuable to us as suggesting ways and means and providing food for thought. I have great faith though in the seed centre, and in the combined competition as a means of bringing about the establishment of these seed centres. We have very few regularly organized seed centres in Ontario at the present time. We have one in Eastern Ontario, which is something over ten years old now. They have continued producing seed year after year, because they have found it profitable.

Mr. Wilson has asked me to say something about the manner of judging the grain in the bin. I have been closely connected with it, and our Association takes a great interest in this combined proposition and the seed centres, but the judging of the grain in the bin is entirely under the direction of the Federal Seed Branch, which is different from the Seed Growers' Association. We have in Western Ontario a seed laboratory here in charge of Mr. Lennox, at Ottawa you have the main laboratory. All societies east of Toronto have their samples sent to Ottawa for germination and seed test.

It has been found a little difficult to have all societies understand the importance of having their seed cleaned up before the judge comes to take the sample. Of course it is very little use to take a sample off one man that is not cleaned and to take samples from other men of seed that is cleaned up. It is pretty hard to give the man any kind of a prize when his seed is not cleaned. I quite understand it is difficult for secretaries to impress upon their men to have this cleaned up. That difficulty will probably disappear, too, as time passes. This year, on account of rust, we have found it disappointing in some societies—some societies which ordinarily produce first-class seed oats are not going to have seed oats that will weigh up to standard this year. They will

not grade even Extra No. 1, which requires two pounds over the standard weight, that is 36 pounds. That is no fault of the men. Perhaps next year they will be able to make the grade. Men who have seed of that kind, which germinates well, can use the same seed next year providing of course it came from registered seed.

Even in Northern Ontario seed oats are not what they should be. It was too dry, and ordinary feeding oats are going up in price there, and seed oats are of course following. Speaking generally, I find that the average price asked for registered seed oats this year runs around $1.10 per bushel for Extra No. 1's, which would have been eligible for registration had it not contained perhaps a little odd kernel of barley, or perhaps had been below 90% in germination; but real high-class seed is bringing about 15 or 20 cents a bushel lower than registered seed.

Sheaves prepared for an Exhibition.

Note the great improvements in same as compared with sheaves tied by the binder.

I want to mention the matter of judging. The old score card that has been used at all these competitions is not really suited to give a man who has not made the inspection a real fair picture of the condition of a field; for instance, a certain number of points were allowed for purity of variety and kind. When I pick up a score card and see 15 points out of 20 allowed for purity of variety and kind, I have no way of knowing whether that score has been cut down on account of freedom from other kinds of grain, and there is a big difference there. There is a greater difference between the score for mixture of type, than scoring for mixture in barley and wheat we will say. There is no way of detecting purity of variety except in the field. Therefore I would suggest to the committee in charge of competitions another year that they revise their score card so as to separate purity of variety from purity of kind. In our score card of this year we have 40 points for purity of variety (a) freedom from other varieties, and

(b) freedom from other kinds of grain. And then as a guide to the judge, and in order to make it a little more uniform, we require that for every plant of another variety found per square rod, 5 points be cut off. That makes it quite simple to do the judging work. After all, the big thing is to score on purity of variety, because as I have just said, weeds and other kinds of grass are eliminated in the cleaning.

HOW TO ENCOURAGE GREATER EXHIBITS OF LIVE STOCK AND FARM PRODUCTS AT FAIRS AND EXHIBITIONS

ROBT. MILLER, STOUFFVILLE.

I feel just a little bit disappointed because there is not time to do justice to what I think the most important subject that will be discussed before this meeting. This is the origin, the foundation, the sheet anchor of exhibitions since we have had them in Canada or any other country. I want to open and lead up to it, but in order to get at the point at all I have to start in the middle of it. In the first place, I wanted to say something to you on the subject of large and small fairs. I am a believer in large fairs, and I am also just as firmly a believer in medium fairs and in the smallest fairs that we have in this country. The little place where a few pioneers are gathered together to hew their homes out of the woods, where they have perhaps only one cow each and a pig each, and they are lucky if they have two or three horses in the community—the little fair that those people can be assisted to hold is implanting in them the desire to have the best that can be had, and the knowledge that they must have of the best if they are going to succeed in the life on the farm is more important perhaps to them because it is laying the foundation of a knowledge that is going to be useful to them in time to come, just as that knowledge was laid in the minds of our pioneers in this country when they first began to cut the woods around this particular district in which we stand.

I can remember when the one exhibition that was held annually in this country just had three bulls shown at it. That was the old Provincial Fair, and that exhibition was talked about and more good and more usefulness came out of that exhibition at the time than there would be even in two or three exhibitions such as we hold in this city at the present time. It had more influence. It developed a knowledge throughout this country that there was a difference between poor animals and medium animals, and the best class of animals for farm use. It developed a knowledge, and it gave that knowledge at a time when the lesson was useful, that good animals were the only instruments that men could have in their barns in order to utilize the feeds that they grew on their farm to the best advantage to be sold on their market.

Some years ago when there was a Provincial Exhibition held in Niagara and Cobourg there were only three male pure-bred animals on exhibition at that show. That was a little exhibition, but look at the importance! A previous speaker told you the importance of raising good seed, to be sold to your neighbours or to different parts of the country, and to furnish, if possible, that 40,000 bushels that was asked for on the other side of the line. Let me tell you what you can do by producing that seed grain which those men need so badly, because they have been careless farmers, and because it is only lately that they have found out the importance of sowing real pedigreed seed for their crops. If you could produce that 40,000 bushels it would be the greatest sledge hammer to break down the customs barriers between that country and this that could

be found. That is what has happened from the three bulls that were shown on that particular occasion that I spoke of when that provincial show was held fifty or sixty years ago. It was noticed by the people across the lines and they said: "These Canadians, this younger generation that has grown from those grand old pioneers from England, Scotland and Ireland, are developing stock of such excellence that we must go to them and take advantage of the opportunities that lie at the northern side of this boundary line. We will dare any politicians or any other men to hold up the customs barriers between these two countries, because they want your seed grain just the same." And we have created in the minds of those men across the line the knowledge that they must have the best of stock if they would turn their corn into a product that would pay the transportation—we have shown to them that they must have that kind of stock, and they have been determined to get that here and in other countries.

There is just a possibility that I may take a position of greater responsibility in connection with the conduct of the Canadian National Exhibition. I was the first farmer on the Board of Directors. I have worked my way up, and it has taken me 23 years. I have been there associated with the best men that this city could supply. We have had the best and most generous men with the time and ability on that Board ever since this has been an Exhibition. It has been one of the finest things and one of the biggest moments in the lives of the best men of this city when they could get up and say: "I am president of the Canadian National Exhibition," and a man who could get that position in this city could get the best positions, and they were asked to take them on a great many occasions without opposition. I take it as a great compliment to myself, but not altogether for selfish reasons or because there was any ability in me, but it has been the desire of the men that have been taking up that Exhibition that they encourage the farmers to feel that they had a tremendous interest here in the live stock that was going to be exhibited there. I am a believer in keeping our fairs and exhibitions well balanced. We should have factories, we should have the arts, we should have different industries represented there, and given the same chance to display their wares, and interest the people who come to see the exhibition. If we ask more exhibitors to come here every year and make their departments grow, we have a right to make earnest efforts to get more people to come and see those exhibits, so that the exhibitors are justified in the efforts that they have made.

I believe that is one of the reasons why we have made such a great success of this exhibition. We heard last night of the great trade fairs that were held many years ago in Russia, and in Leipzig, Germany, and in the different countries. We have heard on many occasions (and we have always been proud of it) of the great Royal Show that is held in England year after year, and of the Highland Agricultural Show that is held in Scotland. Those are the grandest institutions that have been connected with agriculture and in the production of live stock ever since those two interests were taken up by the farmers of that country.

Let me give you a warning, you must allow no men to stay on your boards if they are drones. We have no use for exhibitions that can be classed as "Drone" fairs. There are too many fairs that want to lean with both their shoulders on the Government of Ontario. They want to get the main part of their sustenance from the government. You must be ready to do your part when your name is nominated as a director on your board. If you cannot spare the time and the ability, if you have not the ability to do something good for that exhi-

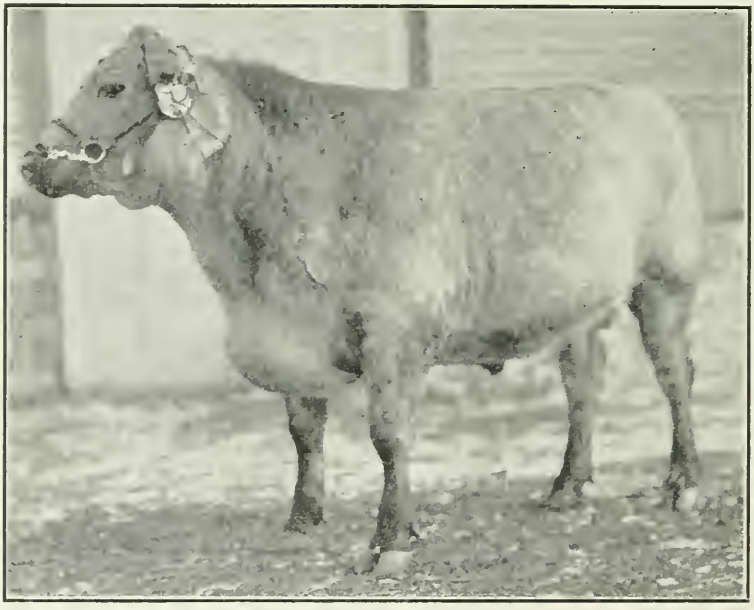
bition, you know it mighty well, and it would not be undue modesty on your part to say: "No, I do not feel quite equal to do what should be done by the director who takes that seat." If you cannot do it, if you have not the determination and inclination and ability, say so at once and let them put a man in there who can provide the energy and the ability to fill the seat and who will do some good there.

Let me illustrate to you two different exhibitions that have been brought into existence. They have lived a long life, they have done a lot of good, and they died a death from old age. Senility set in because they had leaners on the board of directors they did not change them; they did not put in new men, but they turned them into sort of philanthropic institutions, to do some good for the men that had been in there. The Royal Show, the grandest institution that has ever been connected with the work of agriculture in the British Empire, fell into decay after living such a noble and splendid life and doing such a grand work for a great many years. After they decided that they would not have the Royal Show travel about the different places in Great Britain as they had been doing, where they were putting up new buildings each year to hold their exhibitions and then tearing them down, after they had decided to establish that show at London, and they were sure they could have a successful show established and held in one place with permanent buildings, they called the place where they were going to have this show "Park Royal"—every railroad put switches in there and built stations, so that they could carry the people directly into that exhibition. They held one successful show and they were so pleased with it, that after the show was over, and things settled down a little bit and their accounts were settled, Sir Ernest Park, who had been secretary for a number of years, was given credit for building that show, and Sir Jacob Wilson. They knighted them and retired them from their work, and gave them honorary positions with salaries attached. The result was that the great body of agriculturists throughout Great Britain who had sustained that show by paying them one guinea per year, whether they attended or not, lost interest in the show, and said: "They are going to make this a philanthropic institution, they are going to cater to the men who are looking for place and for retirement and for honour. We do not want the show for that purpose, and we have no interest in it." And they refused to pay their membership, and in three years that show had to quit doing business. You would not have thought it possible, and no man there could foresee the possibility of that show ever breaking down. But it was broken down in three years by those leaners, those men who were looking for honours and places for the little things they did on that exhibition board.

We had an exhibition here for a number of years, where the older men did not make room for the younger men. They used to have their expenses paid to the directors' meetings, and they used to have a good time. They had to get so much money from the government each year in order to make up their deficit that the people lost confidence in them, and that exhibition died, and that was the mother of exhibitions in this country and it had every chance, a greater chance to go on and prosper than any other.

Live stock must be the anchor, the foundation stone, and the keystone of the arch in our exhibitions in this country if we are going to make them satisfactory and answer the purpose for which they were intended and that we expect them to do. The city men say, "How is it that your men must have prizes for your live stock before you will bring them here to exhibit them?" I will give you a brief description of how I answer them. I say to them that your manu-

facturers can bring samples of their wares and the customers come to see those samples here at the exhibition; they can sell the whole output of their factory from those samples. But if a farmer or a breeder was to bring two or three of his animals to this exhibition, he would have to bring the best in order to have a chance to win a prize. He could not say that this is a sample, because there is no such thing in live stock breeding as one animal that is just the same as the other, in order to put them on the market. You must bring all the animals that you think the people would be interested in. You must bring your men to take good care of them. You must take those men from the farms where they are needed in greater number at that time of the year than this country can supply. You must buy feed for them and you must look after them every day in order to make them attractive for the people to see them. In many cases those animals are not for sale. Many times they are owned by men who have no cattle at all to sell, and we must have those men bring their animals if we are



Prize Winning Blue Roan Steer.

going to make the fair a great success. Without the live stock and the men interested in them, what benefit would the manufacturers in many lines get from their exhibits there? They would not have the men there whom they are trying to reach. We are the men the manufacturer must reach, because we are the producers of wealth, and you must get to the producer of wealth to sell your wares to him.

There is nothing so interesting as to improve the live stock on the farm. I have been fortunate in being associated with living, moving things, that furnish for the people of this country the absolute necessities of life. They furnish you your food and clothing and everything almost that is absolutely necessary to sustain life, and I believe there is something about being associated with them which you do not receive from other callings in life. Every exhibition should have a good display of them, and it will advertise our country to a better and greater advantage to other countries than any other efforts we can make at those exhibitions.

ELECTION OF OFFICERS.

The result of the election of officers and district directors appears on page 6.

Moved by W. A. Brock, seconded by R. W. McKellar, that Lambton be put in Division 8, and Elgin in Division 9.

It was explained by Mr. Brock that Lambton could be better served by being linked up with Middlesex, Huron and Perth, that at the present time it was very hard to get the necessary railway connection between Lambton, Kent and Essex, that Essex, Kent and Elgin would lend themselves very much better to one division, because of railway connections. This matter, he said, had been taken up with the directors and no objection had been raised.

The seconder, MR. MCKELLAR: We have been in No. 8 district with Perth, Huron and Elgin. Now we find that Elgin is so situated that it had better be connected up with Kent and Essex, because it is of about the same kind of soil as they, and pretty much engaged in the same pursuits, but Lambton being of heavier soil would class in better with Middlesex, Huron and Perth, which have the same kind of soil and engage in the same pursuits. The railway facilities favour the scheme, too, and by making the change I think we would do greater good to the community.

C. W. MOLLAND: As district representative of No. 8, I am in sympathy with the motion, and I would like to endorse what the mover and seconder have said. For a number of years we have not been able to get Elgin to fall in line with us, and I think that the soil is, as has been stated, a kind of light soil and it will go better with the other district as stated.

The motion was carried.

ALEX. HUME: I have been requested to open the discussion on the able address that Mr. Robt. Miller gave this morning. I endorse all that Mr. Miller said, but I think he stopped where he should have started, and left perhaps some of the important things for the discussion to deal with. You notice the discussion is on "How to Encourage Greater Exhibits of Live Stock and Farm Products at Fairs and Exhibitions." There are just two or three main things that will do that. One is to increase the prizes, another is to provide accommodation for these exhibits. These are the two main things that prevent a larger exhibit of the live stock and farm products.

I am not altogether in sympathy with the speaker about help from the government. I think we should go to the government and ask for an increased grant on the basis that we have been getting it, that is, on average expenditure for agricultural purposes for the three previous years.

Last year there was only about 30 per cent. paid on this basis. Perhaps the amount of money in the appropriation was not sufficient, but we are putting up more money at the exhibitions, and it is only plausible that the government should support us to the same extent as formerly. Then there might be an addition made to the several items that go towards the amount on which the grant is based. There might be a grant towards buildings that fair boards erect for show purposes, that is up to a certain amount and to a certain standard. There are other minor things that will help—one is special prizes. We know, as Mr. Miller said, that the live stock and farm products are the basis of agricultural fairs. It is all very well to have a little something else, but these are the main things that fairs should encourage. The committee which waits upon the Minister should urge this increased grant.

Moved by CHAS. HANNA, Belleville, seconded by Mr. B. R. LEAVENS, Picton: "That a hearty vote of appreciation and thanks be extended to the committee in charge of or responsible for the great feast of educational, instructive and inspiring addresses we have been favoured with throughout the convention." Carried.

The following were appointed a committee to wait on the Minister of Agriculture: Messrs. J. F. Ault, Jno. Farrell, A. R. G. Smith, and representatives from each district, as follows: No. 1, Dr. A. T. Morrow; No. 2, J. N. Smith, Parham; No. 3, Mr. Honey; No. 4, Mr. Roxburgh; No. 5, Messrs. Jardine and Ross; No. 6, Messrs. Wallace and W. J. Dryden; No. 7, Mr. West; No. 8, Mr. Dutton; No. 9, Mr. R. A. Smith, Leamington; No. 10, Mr. Carson; No. 11, Mr. Chas. White; No. 12, Mr. E. G. Ross.

It was moved by Mr. W. J. Connelly, and seconded by Jas. Anderson, of Mountain: "That $125,000 be the amount asked for as the grant from the Provincial Government, and that the directors shall take into consideration during the coming year the percentage basis grant, and report to next year's convention." Carried.

At this point Mr. Farrell was asked to vacate the chair for a few moments. Upon his doing so, Mr. A. R. G. Smith presented him with a piece of jewelry on behalf of the Association as a mark of their appreciation of his untiring efforts on their behalf during the past year.

MR. FARRELL responded feelingly.

THE ROYAL AGRICULTURAL WINTER FAIR.

W. A. DRYDEN, BROOKLIN.

The Royal Winter Fair Association at one time was only a dream. Now it is a dream come true. It is an ambition realized. It is an organization that has certainly gotten away to a very fine start as evidenced by its first show held in this city in November. A few people thought that there was a place, a demand, an opportunity to develop and organize a comprehensive winter fair in this province. We believed that the people were ready for an exhibition where all that was good and best in live stock and the other productions of our farms could come together and compete for the very highest and best honours possible. A great many people thought that it was all folly, and were afraid that it would not be a success, but those who started in with the organization kept at it, until last year we had a show which went beyond the expectations of even the most sanguine. The entries totalled 17,000, something unheard of before in a show of this character in the world. In several sections we had more entries of better quality than were ever held at any show in the world before. The show has been justified by the interest taken in it of exhibitors and the public. It received support from public bodies, the Dominion Government, the Ontario Government, and to make it more thoroughly Canadian, every Provincial Government in the Dominion of Canada sent exhibits, paying expenses coming and going, and thus by their actions have proved that they are ready and willing to recognize that the Royal Winter Fair is taking the place of a national show in Canada. We believe that the Provincial Governments will come back and encourage their stockmen and fruitgrowers and poultrymen to make an exhibit much bigger and stronger another year.

This was made possible by the very best co-operation of farmers, livestock men and public bodies, the greatest co-operation ever witnessed, or it would not have been possible. To-day we feel that the Royal Winter Fair has a standing in the community that no other fair association has in Canada to-day. We hope to maintain that position. Our ambition is that the Royal Winter Fair shall stand for the best in everything connected with it. We do not want to have it develop into a local show. We hope to have some of our cousins from across the line with us again this year, as we had last year, in increasing numbers. We hope to be able to find men as judges who will make the awards, not taking care of any little clique, but make the awards absolutely on the basis of merit of the exhibit under display. That is our ambition, and we hope that by following some such line of principle we will encourage and develop the show along the very best lines. This year, even with the splendid arena which was erected by the city of Toronto, we found that our accommodation, our room for the entries which came in was absolutely insufficient.

Now it is pretty difficult to say what should be the type of development for the future, whether we should have ambitions to increase and enlarge. It seems to me that the best thing for us to do is to improve. We need more accommodation possibly. If we could get improved accommodation, ample to take care of a show such as we had last year, then it seems to me if we could work along that line year after year, that eventually we must have increased accommodation.

I do not think that last year we had the support and attendance from the agricultural and rural sections of this province that we could wish for. I had hoped that many more farmers would have availed themselves of the opportunity to come in to the Royal Show. It was well advertised. I think almost everyone knew that such a show was being held. I would like to have seen many more present. Possibly they did not realize that a show of such magnitude was going on. I know many people of my own community have told me since, who were not there, that they have heard about it and they will not miss it another year.

I wish the Fairs Association every success. I do not think you can very well go wrong with a secretary such as Mr. Lockie Wilson in office. Mr. Wilson is a very energetic man, of very good judgment, and he is not likely to steer you astray. I wish you every success.

QUESTION DRAWER.

(Answered by J. Lockie Wilson.)

1. Did the directors take any action as to the railway rates? If so, what results? If not, why not?

A.—We took action in so far as this convention was concerned, and got a reduced rate. Any fair in this province can get the same reduced rate as we got but you must have 150 tickets.

2. Would it be wise to adopt a standard price of admission to fairs?

A.—This is a matter that must be left in the hands of every board of directors.

3. Is it wise to increase the price of admission to fairs?

Answered in No. 2.

4. What is the opinion of convention regarding satisfaction generally of departmental judges as compared with judges selected outside of department?

A.—That is a question that I cannot answer. Of some 500 judges sent out from my department, very few complaints have come in from the secretaries of societies. We ask every society at the close of the fair to have the board pass on the ability of the judge. We had five complaints on the judges that we sent out.

5. Can the Association make any suggestion *re* the continued exhibition year after year of the same articles of fancy work, drawing, etc., which regularly seem to gain the prizes, and which is detrimental to entering by others into these classes of exhibits at the fall fair?

A.—It is up to the board of directors to say whether exhibitors can exhibit the same article year after year. After the second or third year, or after the first year, you could say that after once they had won, they could not be awarded prizes again.

6. How is our county grant based?

A.—There is no such thing as a county grant. In connection with the apportioning of the legislative grants, some county councils give grants to agricultural societies on the same basis as the legislative grant.

7. What about insurance for fairs?

A.—There is a legislative grant of $10,000 to be apportioned to the societies which suffer loss of gate receipts due to wet weather. This does not prevent societies insuring with insurance companies as well if they so desire.

8. I would like some of our delegates to give us their experience in buying new grounds, whether it has been a success or a failure?

A.—That seems rather a peculiar question. It is a good thing for a society to own its grounds, and the larger and the better grounds you can purchase, the better for your fair.

9. What is the government plan at present in securing immigration help for the farmer?

A.—No information has yet been given out in this regard.

10. Would the department favour a standard system of bookkeeping for agricultural societies?

A.—Yes, the department would favour a standard system, but we could not compel any society or secretary to adopt this system of bookkeeping, but the proposition is a good one, and a great many of the societies have adopted an up-to-date system, which has been in force for a good many years. Get into communication with the surrounding fairs, and anything you do would be quite satisfactory to the department.

11. Agricultural society owns grounds and buildings. Can the society let free use be given to other organizations for picnics?

A.—That is a question I think that would almost answer itself. Surely the boards of directors of our agricultural societies, which only use their grounds for two or three days in the year should be quite willing to have anybody hold a picnic or athletic sports on their grounds. It should be up to them to say whether there would be any charge for same.

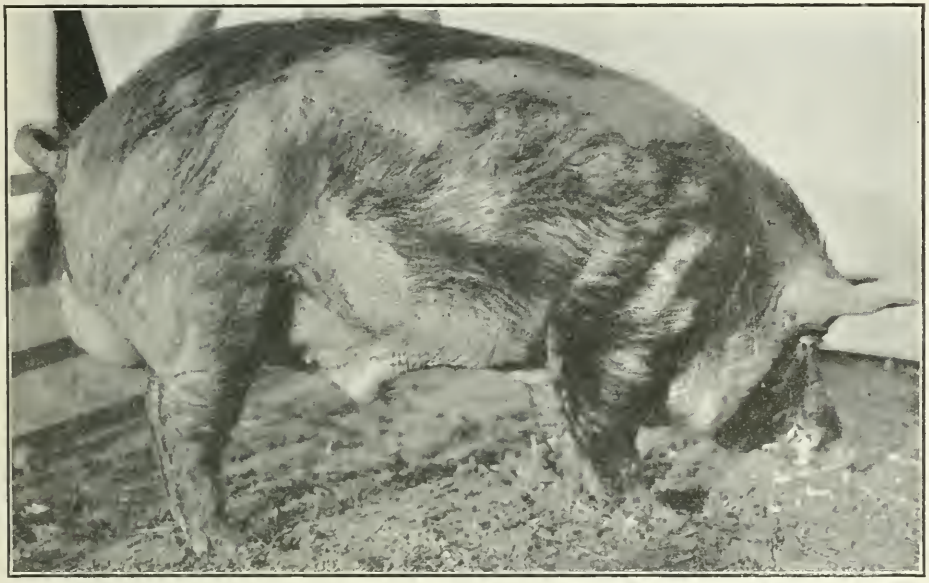
12. Should the auditors of an agricultural society go over all the books, including judges' books?

A.—Certainly, the auditors should go over all the books. Every dollar of expenditure should be gone over carefully by them. Some auditors in some of our fairs are perhaps rather careless in that regard, and more care should be taken in selecting your auditors.

13. Has a secretary-treasurer any right to use the money belonging to an agricultural society for his own private use, or should the money be drawing

interest? Some say you cannot draw interest on it as you have to run it as a savings account.

A.—No secretary or treasurer of an agricultural society should use money belonging to the society for his own benefit. He should deposit it as soon as possible in a bank to the credit of the society. If this is deposited in the savings branch the bank will allow interest on it. If the money is deposited in the current account it is not customary for the bank to allow interest on same. In issuing cheques, these should be countersigned by the president of the society in every case.



Tamworth.

Prof. A. H. Maclennan, of the O.A.C., Guelph: The matter that I have to bring before you this afternoon is not in connection with my work at Guelph in horticulture, but in reference to the potato work as carried on by the Potato Council of Ontario, of which I am the secretary.

The Provincial Department of Agriculture five years ago got to work on the standardization of variety, and since that time we have been working not only on the standardization of the variety, but also on sources of seed supply, and with that in view, at the last meeting of the Council last December, a resolution was passed asking that the fair boards standardize their lists of potatoes. In Ontario we have found it best to list them to practically three standards, Irish Cobbler, Green Mountain, and Rural New Yorker classes—in the Irish Cobbler some eight varieties; the Green Mountain 10 or 12, and the Rural New Yorker some 18. In districts where they grow one standard type, the growers get a better market for them, because of the fact that they can be shipped in carload lots.

In the work of seed certification, we have found that in a great many cases there are a dozen different varieties in a section. The Council will at any time assist the fair boards in making up their list to standard varieties, and you will find that you will have more bona fide exhibitors who are growers and less men who go out and buy potatoes and grade them up to fit the lists that are there.

I revised a list a few years ago that had varieties gone out of existence twenty-five years ago, and I know there are a good many in Ontario at the present time that are in the same condition.

THE CHAIRMAN: One of the questions which Mr. Wilson referred to was the department judges. In the instructions you were all requested to report on the department judges at your fairs. In fairness to Mr. Wilson, you should do that. If a man gives you thorough satisfaction, you should say so; if he does not give satisfaction, for the protection of other fairs and Mr. Wilson as well, you should report that to Mr. Wilson, and he would then not send him out to other fairs.

BOVINE TUBERCULOSIS.

DR. W. F. CLARK, GODERICH, ONT.

Tuberculosis is a widespread disease affecting animals and also man. Human beings and cattle are its chief victims, but there is no kind of animal living that will not take this terrible disease. Hogs and chickens are quite often affected. Horses, sheep, goats and dogs are not quite so bad. Cattle are the most susceptible of all animals.

NATURE OF THE DISEASE.

Tuberculosis is very contagious. It spreads from cow to cow in a herd until most of them are affected. This may not attract much notice from the owner, as the disease is slow to develop, and a cow may be affected with it for several months and sometimes years before any signs of ill health are to be seen. This slow development is the chief reason for the great loss it causes to the farmer or stockman. He does not suspect its presence in his herd until perhaps a large number of them are diseased. If the disease developed rapidly and caused death in a few days, the owner would soon take steps to check its progress and protect the rest of his herd. Tuberculosis is slow and hidden in its course and thus arouses no suspicion until great damage is done.

HISTORY.

Where did tuberculosis come from? Unfortunately we do not know. History records its presence from the earliest times. Over a century ago its contagious nature was suspected, and many facts were recorded to prove that it must be catching. Doctors differed about it and for a long time the question was hotly disputed. Finally it was settled by Doctor Robert Koch, the distinguished German physician, who discovered the germ of the disease in the year 1882 and named it *Bacillus tuberculosis*. He proved by experiment that the disease is produced by these germs, and without them the disease cannot be produced. It is now universally admitted that tuberculosis is a very contagious disease and may be transmitted from animal to man.

In America the disease was introduced with early importations of cattle, and has been with us ever since. Modern methods of transportation by rail and water have spread the disease from one end of the continent to the other, and no part of the country is entirely free from it; but it is more prevalent near the great centres of population than in remoter parts.

Importance.

The importance of the disease must be estimated from two points of view: first, the loss it entails upon the cattle owner; and, second, the danger of communication to human beings.

Consider, first, its effect upon the pocket of the owner of cattle whether farmer, breeder or dairyman. A serious percentage of the dairy cows of the continent are affected, and the disease is found in even a larger percentage of dairy herds. The disease, of course, is commoner in some regions than in others.

It is no uncommon thing to find a large percentage of the cows in a herd diseased. The animals will be in various stages of the disease, some recently infected showing no sign of ill health, others badly diseased, but outwardly appearing healthy, while a few are evidently breaking down and wasting away.

The loss to the owner is evident when a cow dies of the disease or when an apparently healthy cow is slaughtered for beef and found so badly affected as to be unfit for food. The calves in such a herd do not long remain healthy. They catch the disease before many months old and are a source of loss instead of gain. Although the disease is most frequently found in herds that are more or less closely confined, such as dairy herds and pure bred cattle, other herds are by no means free from it. Even range cattle are sometimes affected, and the infections spread in spite of the open-air life of the cattle on the plains.

Tuberculosis is very common among hogs. The public abattoirs report that a serious percentage of all hogs inspected is found to be tuberculous.

The aggregate of these losses among cattle and hogs is enormous, amounting to millions of dollars every year besides materially decreasing the food supply of the country.

Turning to the other aspect of the case, the danger of infection of human beings with tuberculosis from cattle, we have only to consider a few facts to realize its vital importance to every community.

Milk is the staple food of infants and young children and is usually taken in the raw state. If this milk is from a tuberculous cow it may contain millions of living tubercular germs. Young children fed on such milk often contract the disease and it is a frequent cause of death among them.

Meat from tuberculous cattle is not so likely to convey the infection for several reasons. It does not so frequently contain the germs; cooking destroys a great many of those that may be present, and, lastly, meat is not consumed very much by very young children.

Symptoms.

Before describing the symptoms or signs by which tuberculosis is recognized or suspected in the living animal, it is well to state that there is no genuine symptom that can be relied on with certainty. Any of the symptoms may sometimes be caused by some other disease and not one of them is characteristic of tuberculosis alone. Many of the symptoms that are relied on by the human physician in reaching his opinion are not available in examining cattle. The thickness of the skin and chest wall, for instance, makes it quite difficult to detect a diseased condition of their lungs by listening to the sounds made in breathing whereas this is comparatively easy in human beings. It must also be clearly remembered that cattle may be very badly diseased and yet show no symptoms of ill health. They may be fat and sleek-looking, the picture of health, while their lungs and other organs are full of tubercles. Such cases can only be detected by the tuberculin test.

As tuberculosis may attack almost any organ of the body, we may have in each case the symptoms connected with the part affected, as well as those affecting the general state of the body as a whole. We will take up in detail each of the more important suggestive symptoms of the disease.

Unthriftiness.

The animal is not doing as well as it should, for the care and feed it is getting. Its coat is rough and its skin has lost its suppleness and feels harsh and thick, hair standing the wrong way.

Oxford Down Ewe Lamb.

Loss of Flesh.

Along with the unthriftiness is noticed a gradual loss of flesh. The animal gets thinner from week to week. It appears to be pining away, and such cows have been known to dairymen for a long time under the name of piners or wasters. After a time they are reduced almost to skin and bone—just the frame, as it were, left.

Cough.

This symptom is only present when the disease is attacking the lungs or some part of the breathing organs. It is not a loud, sonorous cough, but rather a subdued and infrequent one, and may be heard only at such times as when the stable is just opened in the morning or when the animal is driven. At a later stage of the disease it may be heard at any time of the day.

Cows do not usually appear to cough up anything. This is because they do not spit. Most of the material coughed up from the lungs is swallowed, but

many tuberculosis germs escape from the mouth in the form of spray or are discharged from the nose.

How the Disease is Contracted.

Sooner or later the tuberculous cow begins to give off the germs of the disease. The germs escape by the mouth and nose, the bowels, in the milk, and in discharges from the different organs. When the germs are being given off in any of these ways, the disease is known as open tuberculosis.

Germs discharged from the mouth and nose are coughed up from the lungs and are sprayed over the food in front of the cows or carried in the air for a time until they fall to the ground. Cows in adjoining stalls may take in these germs in the air they breathe, or in the food they eat, and so contract the disease.

How the Disease Spreads

Germs discharged from the bowels are mixed with the manure and may infect cattle and hogs that are allowed to pick over the manure. The practice of having hogs and cattle together in the same yard is sure to result in the infection of the hogs if any of the cattle are affected. The germs in the manure come from matter that is coughed up and swallowed, and in some cases from tuberculosis in the bowels themselves. Manure containing tubercle germs may easily infect the milk.

Particles of dried manure may fall into the milkpail from the skin of a dirty cow or be accidentally flicked off by the tail and fall into the milk. Straining the milk afterwards only removes the larger particles, the smaller ones, including the germs, remaining in the milk.

When the udder is tuberculous the milk contains the germs in vast numbers. Such milk may look and taste perfectly good but readily transmits the disease to young animals. It is also dangerous to children.

Hogs and calves are very readily infected by it.

How a Herd is Infected.

Tuberculosis may be introduced into a healthy herd in a number of ways.

1. By the purchase of a bull or other animal that is infected with the disease. This animal may be apparently healthy at the time of purchase, but if it contains the germs the disease may develop and spread to other cattle. New animals should only be bought from a herd that is known to be healthy.

2. By feeding calves with milk, buttermilk or whey that has come from tuberculous cows. A farmer may have a healthy herd, but if he brings home skim milk from a creamery and feeds it to his calves, he may give them the disease. Such milk should be rendered safe by boiling or pasteurizing it.

3. By showing cattle at fairs and exhibitions where no proper care is taken to keep out diseased stock or in disinfecting stables.

4. By shipping animals in cars that have not been disinfected, as there may have recently been carried diseased cattle in them.

5. By allowing cattle to graze with diseased ones or to come in contact with them over the fences.

The Tuberculin Test.

Tuberculosis develops so slowly that in many cases it is months before any real symptoms are shown. During this period the infected animals cannot be distinguished from the healthy in any ordinary way. There is a test, however,

which does no harm to the healthy yet detects the diseased ones practically without fail. This is known as the tuberculin test, because the substance used in making it is called tuberculin.

Reliability of the Test.

The tuberculin test in the hands of a competent and experienced man is much more accurate than any other method of detecting tuberculosis. The records of large numbers of tests made by government officials show that with certain precautions it is accurate in 98 per cent. of the reactions retained. This gives a margin of a possible two per cent. of error, and this small number may be still further lessened by care. In making the test for practical purposes, any animal that reacts must be considered tuberculous.

Enlarged Glands.

Enlargements in the region of the throat, especially when they cause difficulty in breathing, are very apt to be due to tuberculosis.

Loss of Appetite.

This symptom is not seen until the latter stages of the disease when the animal is evidently wasting.

Bloating.

Sometimes the diseased glands in the chest prevent the usual passage of gas from the paunch to the mouth by pressing on the gullet. In this case the cow suffers from bloating, and the paunch is often greatly distended with gas. This, however, is not always a symptom.

Diarrhoea.

Looseness of the bowels or scouring is seen in cattle affected with the disease in the bowels. This kind of scouring cannot be cured by any known treatment.

Hard Lumps in the Udder.

When tuberculosis attacks the udder no change can be detected at first but after a time hard lumps can be felt in some parts of the organ after it is milked out. Milk from such an udder must not be used as it is almost certain to be teeming with germs of the disease.

Postmortem Appearances.

When the carcass of a cow affected with tuberculosis is opened the disease may be found in any part of the body. Lumps or tubercles may be present in the substance of an organ such as the liver or lung or they may be growing on the surface. These lumps may be so small as to be scarcely noticeable, or they may be as large as the closed fist or even larger. If one of the lumps is cut open the insides is yellowish and grits on the knife like sand or else is of a cheesy nature, soft and creamy or hard and dry.

The lung is the favourite place for tubercles, and should always be examined. Lymph glands are often the seat of tuberculous changes. When healthy a lymph gland is a little rounded body not much larger than a good-sized bean, the largest only the size of one's thumb.

They are found all through the body, and when healthy are so small as to attract very little attention. Tuberculosis may cause them to grow to an enormous size, sometimes as large as a child's head. In this condition they are similar to the tuberculous lumps already described. Those lying between the lungs and in the throat are the most frequently affected.

Tubercles may be found in any part of the body glands, lungs, liver, bowels, kidneys, womb, udder and even bones, muscles and skin being hardly ever affected.

What is Tuberculin?

Tuberculin is a fluid containing the products of the tubercle germ without the germs themselves. As it contains no living germ it cannot convey the disease. Great skill is required in its preparation. A special fluid (or culture medium) is prepared, and the tubercle bacilli planted in it, great care being taken to keep all other germs out. The fluid is then placed in a special kind of incubator, and kept at the temperature of the animal body. Under these conditions the germs grow and multiply. Gradually the fluid is filled with the products of the germs. When the right point is reached the fluid is heated sufficiently to kill the germs, which are then strained out. The remaining fluid is tuberculin.

Tuberculin does not harm healthy cattle even in large doses, but on diseased animals it produces a marked effect.

This is shown by a feverish attack which comes on about eight to twelve hours after the tuberculin is administered, lasts a few hours and then subsides.

This temporary fever is called the reaction, and animals which show it are called reactors. The value of the test lies in the fact that diseased animals react while healthy ones do not.

REPORTS OF DISTRICT DIRECTORS.

District No. 1.—Dr. T. A. Morrow, Maxville, Director.

I did not make an official visit to any of the fall fairs this year, as I found last year that all the officers were too busy to talk to me. But I kept in touch with most of them by correspondence and visiting their social functions, and find that there is an improvement in the exhibits and especially the light horses.

I called a meeting at the Russell House, Ottawa, January 24th, of representatives appointed at the annual meetings to arrange the dates for the fall fairs and to discuss questions of general interest. Over half of the societies sent a representative, and some of the others sent me word as to the dates they would like to have, or an alternative.

The fact that the Central Canada Exhibition holds its fair on the second week of September makes it difficult to arrange suitable dates for the twenty-three other fairs, as it is not desirable or profitable to compete with the Central Canada at Ottawa. This leaves us with only about two weeks for fall fairs in the district. August is too early to have the products of the farm ready for exhibition, and during the last week of September the farmers are all busy with their corn harvest. But we were able to arrange dates satisfactory for all but one fair.

At the meeting we had a friendly table talk about grants, judges, exhibits, the use of the grounds during the summer, and the difficulties which the various societies encountered, as well as many valuable pointers which were instrumental in creating a more friendly feeling between the societies. All the mem-

bers present expressed their opinion that it was the most beneficial meeting they had yet attended, and suggested that a similar meeting be held each year, in November, as their resolutions which they had made after their fairs would be fresh in their memory, and that the dates for the next year might be confirmed at the annual meeting.

I again tried to have the district representative for Glengarry-Stormont arrange that the school fairs be held in conjunction with the fall fairs, but he could not be convinced to try it.

I find that only a small portion of the societies own their grounds, which I consider a mistake as it gives no encouragement for improvements either to the grounds or buildings.

One of the Shetlands exhibited at the Royal Winter Fair.

Kenyon Agricultural Society, which has its headquarters at Maxville, this year built a new show hall, 100x24 ft., and a new barn 100 ft. long, with two rows of stalls besides an extension to the grand stand and wiring the new parts, at a total cost of about $3,500.

By putting on moving pictures, concerts and a few dances for the young people in the show hall, and running the grounds, meals and booths themselves, they were able to reduce the debt to $2,000, although it took the gate money, sale of tickets, government and municipal grant to pay the prize list and officers' expenses.

To repay the public for their liberal assistance, the directors passed a resolution granting free use of the grounds and buildings for one day in the year to every church in the locality, the Women's Institute, and the Milk Producers' Association, and hope that they may all take advantage of the offer.

District No. 2.—W. J. Connelly, Director.

In my district, composed of four counties, Renfrew, Lanark, Leeds and Frontenac, there are twenty-two fall fairs, far too many for any one director to look after properly, and I am still an advocate of having a revision made of the district. I have not been able to visit very many of our fairs, but I have written to all the secretaries, trying to give them a little encouragement, and judging from the number I have heard from, I think we have had at least an average year. If our fairs are going to prosper, we must give larger prizes, especially for live stock. And I do not know any better way of raising money than to have a deputation from each society wait on the local municipal council and county council. We have tried it in Renfrew county with good results. The money goes back to our boys and girls and helps to encourage them.

I find one of the best ways to boom a fair is to start at the annual meeting to get enthusiasm worked up. This year in Cobden we applied to the Department at Ottawa for a special speaker, who put some life into the meeting. His address was chiefly along good clean seed and its benefits, with the result that when we made an appeal for entries for our field-grain competition we got a large number to enter. Keep your money working in improving your grounds, buildings, etc. A bank account never did any fair association any good.

District No. 3.—Alex. Hume, Campbellford, Director.

Owing to favourable weather, the several shows were well attended, and more interest was taken in bringing out and examining the exhibits. The exhibits on the whole were more numerous than usual and in better condition. Mention might be made of some outstanding fairs. Picton was a four-day fair. We think it hardly fair for one fair to claim a whole week practically to the exclusion of the others. Warkworth, where they erected a large stock steel building to accommodate about 100 head of cattle, costing up in the thousands. The Seymour Agricultural Society held at Campbellford, where they constructed a new and up-to-date poultry building at a cost of over $2,000. It was practically all filled with birds. They have one of the largest live stock fairs in the district. Of the 150 head of cattle on exhibition, there were 82 head of Ayrshires alone, also a large display of horses, pigs, sheep and other agricultural exhibits, not to particularize on the inside exhibit of ladies' work, etc.

District No. 5.—Jas. McLean, Richmond Hill, Director.

I visited as many as I could of the local fairs, although my work with the department in judging field crops and at the fairs, prevented me from attending as many as I should have liked.

At those which I attended I found that the heavy horses, while not bred as numerously as some years ago, are of good quality, and the entry classes fairly well filled.

Light horses are the same. The automobile to a certain extent has curtailed the breeding of the light horse, still the exhibit was of good quality.

Among the beef and dairy breeds of cattle I found good specimens. The quality after all is what counts. A great many young people attend the fairs, and they take what is at the fair as their object in view when they go home, as the kind of animal that is needed.

In the sheep and hogs I found the same condition, especially in the hogs. Perhaps the hog-grading is having a beneficial effect. At any rate, I found the hogs were pretty true to bacon type. And the fairs in general were pretty well up to standard. The whole exhibits were good, and I could see in a great many cases that they were trying to improve them.

District No. 8.—C. W. Molland, Thorndale, Director.

The year as a whole has been a prosperous one for the agricultural societies in these districts. Early in September the rains prevented the farmers from sowing their wheat. Then later, when weather conditions improved, they were too busy drilling in their grain to attend the fairs, consequently the attendance was greatly diminished.

There were a few centres whose fairs fell on the same day. In the case of our own, there were two neighbouring societies that observed the same day, thus greatly injuring all three. A way out of this difficulty would be for each society to notify the district director, who would settle the date for each.

We visited several of these township, town and city fairs. In every instance we were well received, and were pleased to note that the officials were alert and interested in their business, arranging exhibits and assisting judges.

We wrote the secretary of each of such fairs that we failed to visit, for the purpose of securing a report. In most cases we were pleased to learn that where fine weather prevailed, gate receipts, entries and exhibits had been increased, and each society was doing a good work, either in the matter of entertaining and educating the populace, or in making improvements to their grounds, or in paying off some part of their debt.

To give a specific instance in proof of this: At Dorchester, better known as Donnybrook, which is in Middlesex, the gate receipts were double this year what they were five years ago. How was it done? They increased their prize list, raised their admission fee, and now they can show a balance on hand five times as large as that of five years ago.

Let me cite some figures from Brussels Fair as a proof of their success. They paid out prize money to the extent of $900, and their total receipts were $2,600.78 with an admission fee of twenty-five cents.

If time and space would permit I could tell of other such successes. One serious drawback to the local fair is the interference of the school fairs. We would suggest that the school exhibit be amalgamated with the local fair, thereby increasing our gate receipts and our exhibits, together with the general interest of the public.

We held a meeting at Stratford, January 29th, in connection with the district at which fifteen societies were represented. The meeting was full of enthusiasm with discussion and resolutions helpful to all present. We would advise the holding of two meetings if possible in each district, first one just after the convention to go over matters brought up at it and arrangement of dates for fairs; the second to go over the work of each society and discuss fairs in detail.

District No. 9.—Fred. Littlejohns, Highgate, Director.

The societies in District No. 9 have had on the whole a very successful year and the fall fairs were well attended.

As I could not visit them all, on account of my municipal duties taking so much of my attention, particularly at this time of the year, I visited as many as could be conveniently attended.

I found that several of the societies do not have as large exhibits of live stock as they formerly had, and the reasons given for such decrease is attributed principally to the automobile.

Many owners of valuable pure-bred cattle do not care to take the risk of driving their stock upon the highways with such numbers of autos speeding along.

Others have found that in their case the prizes offered do not seem to be sufficient remuneration for the time and work required to fit and exhibit their stock and for that reason have discontinued exhibiting.

I am glad to say that of the latter class there are not very many, as the average exhibitor takes more pride in the prizes he wins and the resultant advertising of his stock, rather than the money value of his prizes.

The school fairs are carrying on splendidly, and the future results of their efforts cannot be estimated.

The few which I attended were a surprise to me, as they had far more entries and much larger attendance than I anticipated, and the manner in which they were conducted would compare very favourably with the best conducted agricultural fair.

Some of the agricultural fall fairs have joined in with the school fairs, and while it has been partially successful yet in the whole it seems to me to take the individuality away from the school fair. The present boys and girls of the school fairs will soon be the directors of the agricultural fairs, and if they can get their early training under the supervision of the district representatives, who are experts in their line, they will no doubt be an improvement on the present generation, and we hope they will.

The field crop competitions of this district were well contested, and the entries were in excess of former years. The yield from these crops was above the average, and in conversation with some of the contestants they assured me that aside from the prize moneys, they were greatly rewarded for their extra efforts by the increased yield per acre and the satisfaction of a clean crop.

The real value of the field crop competitions cannot, in my opinion, be estimated, for, if one will compute the increased production per acre of the crops under the conditions of the field crop competitions as compared with the average field crop not given the same care and cultivation, and then multiply that few extra bushels per acre by the thousands of acres in the competitions and you will arrive at a sum which will, I think, fully justify the existence of our field-crop competitions.

We are not unlike many other organizations in some respects.

For instance, I find some of the Boards of Directors have a member or two who are not workers, and do but little to advance the welfare of the society to which they belong.

To put the indifferent director off the board at the next annual meeting is one way to deal with his case, but I have found by actual experience that much better results can be obtained in a great many cases by appealing to the individual's personality, and by giving him work to do and by asking his advice and assistance and generally by these means and a little blarney you obtain a very good director.

In electing your directors by all means get the very best you can, as the work requires men and women who are willing and able to give their time and talents for the good of the community in which they dwell.

In conclusion, I wish to thank those of the various fair boards who furnished information and assistance and generally to thank you all for permitting me to occupy this honourable position as your district director.

District No. 10.—A. Findlay, Chatsworth, Director.

District No. 10 comprises two counties, Bruce and Grey, in which there are thirty-five fairs. I was not able to attend more than five or six, for the reason that too many are held on the same date.

In one case three fairs were held within a short distance of each other on the same day, but as some of the printing had been done in connection with these fairs no change in dates could be arranged.

It has been suggested that some of the smaller fairs should go out of existence. If the boards of directors of these fairs would increase their prize money so that it would be worth while for a man to bring his stock and other products out, they would find it would advertise and improve their own fair considerably. Take our own, for instance. We are paying out almost double the amount of prize money we did five years ago, mainly because we have increased our prize money. One of the biggest difficulties of the smaller fair is to get bigger gate receipts.

Live stock of all kinds were out in stronger force this year than in former years, especially horses, which were far superior to anything heretofore seen in the show ring.

The cattle, sheep, swine and poultry were above the average and there was an abundance of all kinds of fruit of the best quality.

At a few of the fairs judging competitions are held for the boys, which is a step in the right direction, although more boys could take a bigger interest than they are now doing.

A better system of judging, in some cases at least, could be employed. Take, for instance, a class of eight horses. Why could not the judge pick the first three horses and line them up at one end, then the public could see who the prizewinners are, instead of picking an animal here and there all down the line. Also, in a good many cases the judge could stay more closely to type and conformation, and classify the horses more than is being done.

There were only two fairs in the province this year, namely Chatsworth and Paris, in which a sheep fair was held in connection with the Provincial and Dominion Departments of Agriculture. At our fair in Chatsworth we had between 250 and 300 sheep and lambs which were graded, judged, and sold on the fair grounds. Needless to say, the sheep exhibit this year was one of the big attractions.

District No. 11.—Chas. White, Emsdale, Director.

In District No. 11 are Muskoka, Parry Sound and Haliburton, a large territory for one director to cover.

At the fairs I visited I found the officers very courteous, but very busy with their several duties. The weather was excellent, which is a big factor in ensuring the success of the fall fair.

The horse ring was not so well patronized, as the car seems to have absorbed much of the interest formerly shown. At one fair they had a contest for the best decorated car which drew a large competition among the farmers as well as the outsiders; one other fair had a drawing contest which brought a lot of good horses into the ring. The cattle, sheep, swine and poultry showed up very good in quality as well as quantity, and the campaign for better sires is making its effect evident on the quality of cattle shown.

The roots and vegetables were well displayed, and for quantity and quality could not be much better, considering the dry season.

The ladies' work in fancy and domestic science was well in the foreground, and the display shown is a great credit to the ladies.

The rural school fair is a great factor in training our boys and girls, and, if arrangements could be made to hold them on the same day as the fall fair, it

would be a good thing, as it saves time, for it is a busy time in the fall, and more spectators will see the children's exhibits at the fall fair.

A young people's judging contest was a good drawing card, and teaches them the good and bad points of the different animals. One was held at Huntsville under Mr. Beckett, the district representative of the department, and was a good success.

The field crop competition is still a leading feature in District No. 11, and is doing good work in getting farmers to produce better grain and roots. I thank the officers of District 11 for kindness shown me on my several visits.

District No. 12.—E. T. Ross, Kenora, Director.

I hereby submit a report of the Agricultural Societies in Thunder Bay, Kenora, and Rainy River Districts. These districts extend from the Manitoba boundary to White River, a distance of about 500 miles.

We have eight fairs in these districts. I was unable to attend all of them on account of the distance and expense. The largest fair in these districts is the West Algoma Agricultural Association, held midway between Port Arthur and Fort William. We had more and better exhibits than ever before and livestock exhibits far exceeded previous years. Our first day was very wet, and in spite of the fact that the Hon. Harry Cockshutt opened the fair, we had very small gate receipts on account of the rainy day.

We had about 3,000 entries. Considering the fact that we paid out $2,300 in prizes, which was $600 more than any previous year, and that we spent large sums in improvement to track and buildings, we consider that we had a successful year and that substantial progress has been made.

We inaugurated a Farmers' U.F.O. Club competition for which we awarded a silver shield to the club whose members won most prizes at the fair, the shield to be hung in the clubroom until next year, when it will again be competed for. A member of the club winning a first prize got three points, second prize two points, and a third prize one point. The Murillo Club won the shield for 1922. The Association also arranged for a fine exhibit of roots and vegetables and sent them down to the Corn School Week exhibition at Le Grange, Indiana, where they caused much favourable comment and proved a great advertising medium. They were placed in charge of one of the directors, Mr. Sid Prince, who went with the exhibit. We also entered the field crop competitions in oats and registered Carman No. 1 potatoes, for which the district is famous.

We find it impossible to hold our fair without outside attractions. Our rural population is small in comparison to our urban population, and it is hard to get the majority of the farmers in our north country to take an interest in this kind of work on account of the busy time in the district.

Oliver Society held its fair in Murillo, and it was one of the most successful fairs in my territory. The exhibits were of very excellent quality. They had 1,500 entries, more than in any previous year; they spent a good deal of money on the track and improvements on buildings, and had a surplus of over $700.

Emo Fair was very successful. Exhibits were very good, especially in horses, cattle, vegetables, roots and grains. There was a big increase in pedigreed horses and registered cattle. They had about 2,000 entries in all.

Kenora Fair was a success in every way. They have had a bank loan since 1921, but were able to pay it off, and have a credit balance of $100.

Atwood Agricultural Society held its fair at Rainy River. The weather was ideal, and attendance all that could be desired. The Hall exhibits were excep-

tionally good, and the roots and vegetables were amazing to those not conversant with the possibilities of Rainy River District. The ladies' work far exceeded any previous year, both in number and quality. The display of clover seed was such as to warrant the slogan of the district, "The Land where Clover is a Weed."

Dryden Fair was not as well patronized in exhibits this year as in 1921. Owing to the farmers trying to finish threshing, entries dropped about 250. But financially it was a success and they had a surplus of about $240.

Ware Society held its fair in Kaministiquia. The fair was a success, they carried out a good many improvements and had a credit balance.

White River Valley was held at Hymers, and it was a very successful fair. They held their fair on their own ground for the first time, and were able to collect admission. They had a very nice hall and chicken house built, and expect to have a track another year.

These districts cannot be surpassed for raising seed potatoes and clover seed. Clover grows like a weed, so that makes our districts a great dairy country.

District No. 12.—John McFarlane, New Liskeard, Director.

The season of 1922 was very favourable for the growth of all kinds of farm and garden products, hence the agricultural fairs I was able to attend had very fine exhibits. However, in this district, so great in extent, one is able to visit but a few of the fairs. I visited fairs at Englehart, Charlton, Matheson and New Liskeard, of which society I have the honour to be president.

Matheson Society is but young, and has not yet made great headway. I am hopeful that in the near future this society will pull ahead. There is a fine agricultural country surrounding this town.

Englehart always has a fine fair. The society has nice fair grounds and suitable buildings and stock sheds.

Charlton is a fine agricultural centre but was completely wiped out by the disastrous fire in October last. Of the only two buildings left, one was the Agricultural Society's building. This building became the shelter of many fire refugees.

New Liskeard Fair has grown yearly since organization and considering the size of the town, and the newness of the settlement, has probably made more rapid headway than any country society in the province, in the amount of cash paid in prizes, inasmuch as of the 352 societies in Ontario, this society stands 35th highest in cash paid in prizes in 1922. Last year, 1922, there were exhibits from the mines and forests as well as from the field and garden. Great interest was taken in this fair, which for the first time, covered three days.

The Convention then adjourned.

REPORTS OF AGRICULTURAL SOCIETIES IN ONTARIO SHOWING RECEIPTS AND EXPENDITURES FOR THE YEAR 1922

Societies	Receipts							Expenditure					
	Legislative grants	Municipal grants	Cash donations	Members' fees retained from 1921	Members' fees paid in 1922	Gate receipts at exhibitions	Total actual receipts	Total prize money paid in cash	Special attractions	Officers' salaries	Total expenditure for agricultural purposes	Total actual expenditure	Value of land and buildings
ALGOMA:	$	$	$	$	$	$	$	$	$	$	$	$	$
Bruce Mines	316	.....	77	40	80	472	1,134	497	160	50	597	2,235	3,500
Central Algoma	880	.....	15	99	269	3,679	8,379	1,579	2,060	330	1,730	11,456	61,870
Iron Bridge	120	.....	.....	32	10	22	180	166	.....	12	186	276	40
Johnston and Aberdeen	118	.....	.....	44	4	36	175	96	.....	22	108	170	.....
North Shore	.....	.....	2	44	8	16	220	157	.....	20	209	366	290
St. Joseph Island	231	20	.....	44	11	56	363	260	.....	20	260	336	.....
Thessalon	269	.....	19	56	6	218	665	366	.....	.....	416	595	2,000
BRANT:													
Onondaga	182	300	210	52	33	391	1,558	612	445	77	630	1,742	450
Paris	400	150	295	79	223	891	2,797	1,365	123	388	1,441	2,906	2,150
South Brant	296	150	425	58	210	1,279	3,737	1,564	482	235	1,604	3,669	9,000
BRUCE:													
Arran and Tara	377	150	65	118	122	666	2,134	1,424	50	72	1,503	2,291	2,800
Carrick	291	335	.....	96	281	335	1,544	973	65	44	1,089	1,465	.....
Chesley	165	250	79	62	97	443	1,230	860	40	50	910	1,460	.....
Eastnor	83	175	8	55	53	226	853	330	50	80	379	745	1,030
Hepworth	157	230	54	77	39	223	875	565	35	67	663	1,084	.....
Huron Township	176	275	48	60	49	483	1,482	564	390	119	641	1,486	3,000
Kincardine	138	175	173	52	62	501	1,271	525	390	125	588	1,463	.....
Lucknow	221	285	167	83	15	395	1,699	717	35	50	785	1,637	1,000
North Bruce and Saugeen	196	225	64	82	50	346	1,171	671	187	75	680	1,180	.....
Paisley	226	250	49	89	64	398	1,498	863	127	120	897	1,547	.....
Pinkerton	97	175	22	29	41	41	677	372	11	30	440	837	300
Teeswater	325	200	48	143	54	921	1,998	1,035	329	75	1,172	2,005	1,375
Tiverton	145	200	54	69	25	284	1,181	546	32	50	592	1,107	2,830
Underwood	129	175	7	69	18	91	593	454	14	42	518	810	.....
Wiarton	207	325	90	76	48	531	1,741	629	300	104	752	1,515	3,275
CARLETON:													
Carleton County	408	1,000	240	156	149	1,077	4,011	2,411	.....	210	2,396	4,435	5,100
Carp	313	1,100	60	81	80	716	2,747	910	65	160	1,082	2,384	6,950

REPORTS OF AGRICULTURAL SOCIETIES IN ONTARIO, SHOWING RECEIPTS AND EXPENDITURE FOR THE YEAR 1922—*Con.*

Societies	Receipts							Expenditure					
	Legislative grants	Municipal grants	Cash donations	Members' fees retained from 1921	Members' fees paid in 1922	Gate receipts at exhibitions	Total actual receipts	Total prize money paid in cash	Special attractions	Officers' salaries	Total expenditure for agricultural purposes	Total actual expenditure	Value of land and buildings
CARLETON—*Con.*	$	$	$	$	$	$	$	$	$	$	$	$	$
Fitzroy	196	1,000	187	63	22	257	2,446	578	58	125	663	2,244	3,400
Metcalfe	380	1,225	512	118	102	823	3,733	1,443	259	150	1,545	4,418	6,800
DUFFERIN:													
Dufferin	372	350	426	121	336	1,263	4,091	1,246	762	245	1,341	3,593	13,300
Dufferin Central	311	300	309	90	40	969	2,620	1,021	574	218	1,007	2,984	6,825
East Luther	245	275	59	80	163	529	2,192	810	461	110	930	2,430	5,600
DUNDAS:													
Dundas	79	.....	109	60	28	1,685	2,428	262	1,097	125	299	2,326	1,675
Mountain	216	150	164	67	110	618	1,763	616	227	85	748	1,582	2,000
Winchester	220	.....	346	110	106	891	2,533	744	963	100	816	2,974	10,500
DURHAM:													
Cartwright	149	47	.....	67	154	270	874	464	.....	25	529	741	.....
Clarke Township	317	200	98	102	76	583	2,218	1,133	305	120	1,188	2,564	4,500
Millbrook	254	430	81	78	30	1,157	3,250	1,028	270	139	1,135	2,786	8,750
Port Hope	.....	150	208	90	91	940	2,839	1,393	300	150	1,500	3,318	1,481
West Durham	429	150	320	106	80	1,481	3,755	1,457	502	125	1,542	4,554	7,400
ELGIN:													
Aldboro	216	258	111	90	43	919	2,701	910	115	106	991	2,343	8,462
Aylmer and East Elgin	175	564	135	41	360	587	2,828	770	666	10	883	2,895	4,000
Shedden	85	242	52	28	17	257	946	281	301	35	281	961	120
South Dorchester	159	322	196	32	52	245	1,291	680	155	65	740	1,249	.....
Straffordville	90	75	71	19	49	142	668	311	215	40	308	755	765
West Elgin	362	306	310	95	61	1,574	4,042	1,450	480	64	1,579	3,766	3,600
Yarmouth and Belmont	300	300	200	18	300	175	1,374	559	311	89	613	1,366	.....
ESSEX:													
Amherstburg, Anderdon and Malden	204	500	175	.....	205	916	1,220	957	654	40	1,045	3,557	10,000
Colchester South	203	150	124	55	120	322	1,090	717	193	88	747	1,317	3,000
Comber	(No returns)												
Essex County	544	535	300	116	255	2,735	5,288	1,974	818	225	1,976	4,461	8,100

ESSEX—Con.													
Mersea, Leamington and South Gosfield	511	400	273	119	1,098	3,619	8,090	2,265	2,214	181	2,321	7,034	21,040
FRONTENAC:													
Kennebec	85	100	.....	31	15	88	313	172	35	27	197	317	.....
Kingston Industrial	800	900	1,486	164	162	8,702	17,509	3,354	4,027	670	3,523	16,287	390
Parham	157	25	185	46	36	216	876	346	408	32	406	1,064	986
Storrington	92	165	72	46	26	151	1,042	246	250	60	250	1,133	2,000
Wolfe Island	93	125	168	56	33	255	940	290	363	50	359	1,117	.....
GLENGARRY:													
Glengarry	207	125	35	70	58	662	1,476	728	105	92	752	1,545	.....
Kenyon	204	100	278	67	258	720	3,247	1,002	36	100	1,078	3,480	10,500
St. Lawrence Valley	359	.....	228	87	95	762	1,795	1,085	25	100	1,213	1,647	4,700
GRENVILLE:													
Kemptville	92	92	.....	78	96	950	1,396	424	555	100	442	1,516	.....
Merrickville	129	129	79	76	22	225	1,892	483	63	89	509	1,234	1,450
Spencerville	131	131	232	68	51	894	1,843	480	388	75	518	2,025	2,500
GREY:													
Ayton	106	240	61	47	49	125	628	325	130	34	334	672	.....
Collingwood Township	224	375	376	63	44	358	1,541	773	.....	90	815	1,538	550
Desboro	191	190	66	69	178	213	1,245	748	42	50	781	1,413	300
East Grey	121	175	5	64	27	382	1,138	443	334	63	506	1,233	1,765
Egremont	175	250	134	83	37	269	1,533	683	111	42	714	1,735	3,850
Hanover, Bentinck and Brant	199	275	126	74	34	931	1,831	879	669	60	936	2,100	10,550
Holland	247	195	84	102	210	274	1,975	977	70	50	1,086	2,021	1,000
Keppel and Sarawak	100	180	27	60	36	81	617	296	.....	52	366	602	75
Kilsyth	241	260	43	103	242	217	1,638	940	30	55	1,060	1,825	3,100
Markdale	285	150	.....	78	40	702	1,582	972	105	119	995	1,579	651
Meaford and St. Vincent	274	550	223	72	150	1,121	3,563	1,149	206	160	1,249	2,556	13,500
Normanby	77	175	36	.....	65	133	470	304	65	27	304	490	.....
Osprey	180	190	46	81	23	296	1,126	610	121	64	685	1,200	825
Owen Sound	456	150	730	115	154	1,870	4,825	1,962	736	250	2,033	5,101	5,500
Priceville	66	165	.....	22	74	132	769	221	117	32	289	784	975
Proton	203	175	88	99	40	864	1,976	745	413	104	859	1,944	4,400
Rocklyn	163	150	14	60	117	302	1,370	666	20	69	750	1,239	5,000
South Grey	129	150	104	37	65	231	1,052	466	181	62	528	1,108	4,300
Sydenham	136	200	32	22	81	68	655	537	.....	42	551	765	500
Walter's Falls	256	200	80	49	83	209	1,265	885	.....	70	903	1,509	1,850
HALDIMAND:													
Caledonia	531	350	20	88	85	3,050	5,473	1,936	757	258	1,968	5,173	8,611
Canboro	49	100	56	21	35	45	374	186	100	20	186	403	.....
Dunnville	130	50	104	55	137	2,966	4,768	506	2,266	100	572	4,844	7,414
Haldimand	172	75	20	39	60	377	1,510	554	516	90	677	1,592	4,200
Southern Branch	105	75	112	.....	85	5	717	240	51	47	252	612	400
Walpole	162	200	67	.....	128	263	1,025	543	174	100	572	1,182	25

REPORTS OF AGRICULTURAL SOCIETIES IN ONTARIO, SHOWING RECEIPTS AND EXPENDITURES FOR THE YEAR 1922—*Con.*

Societies	Receipts							Expenditure					
	Legislative grants	Municipal grants	Cash donations	Members' fees retained from 1921	Members' fees paid in 1922	Gate receipts at exhibitions	Total actual receipts	Total prize money paid in cash	Special attractions	Officers' salaries	Total expenditure for agricultural purposes	Total actual expenditure	Value of land and buildings
HALIBURTON:	$	$	$	$	$	$	$	$	$	$	$	$	$
Glamorgan	78	.....	.....	18	6	7	215	103	17	20	105	194	230
Haliburton	272	50	10	40	24	164	705	347	160	55	361	668	.....
Minden	326	.....	.....	31	13	147	571	455	9	30	481	568	820
HALTON:													
Acton	263	125	161	72	148	711	2,026	1,033	415	79	1,039	2,007	186
Esquesing	264	300	245	75	79	290	1,613	923	154	89	947	1,616	100
Halton	446	300	330	104	119	1,708	4,206	1,453	851	245	1,647	4,341	14,400
Nelson and Burlington	292	600	365	84	200	668	4,554	979	636	125	1,049	4,320	18,223
Trafalgar	800	2,050	1,306	96	663	2,442	11,640	4,070	500	510	4,053	14,665	34,279
HASTINGS:													
Bancroft	264	100	143	86	35	375	1,383	571	226	131	713	1,716	2,650
Belleville	387	400	160	63	192	1,098	3,671	1,219	791	153	1,288	3,429	.....
Frankford	236	100	124	.....	35	501	1,117	633	40	95	653	998	6,000
Madoc	289	100	321	133	18	1,091	2,443	818	175	95	986	2,513	1,216
Marmora	243	145	191	90	44	653	2,033	906	162	104	967	2,344	2,975
Maynooth	124	100	7	34	17	69	458	238	66	32	289	494	.....
Shannonville	110	100	29	28	52	508	1,222	415	257	125	442	1,908	1,160
Sterling	230	100	299	103	82	471	2,803	874	238	79	1,006	2,655	7,600
Tweed	.....	150	.....	20	30	1,106	1,684	992	417	100	1,055	1,209	.....
Wollaston	304	135	49	52	37	306	1,157	712	190	35	809	1,269	2,050
HURON:													
Bayfield	111	115	14	62	85	297	936	416	150	54	416	1,016	1,960
Blyth	139	273	86	55	57	387	1,550	604	187	95	611	1,452	2,700
Dungannon	94	110	53	33	25	425	1,437	381	305	77	389	1,195	.....
East Huron	231	150	86	114	68	580	1,896	897	432	75	1,008	2,272	5,900
Exeter	254	145	45	78	160	616	1,738	780	307	93	843	1,804	3,100
Goderich Industrial	225	100	28	65	155	1,402	2,429	803	556	100	843	2,613	.....
Howick	168	200	84	76	36	163	1,056	693	45	60	773	1,102	20
Seaforth	165	230	114	76	108	487	1,516	654	257	60	673	1,652	2,340
Turnberry	207	265	132	108	140	599	1,971	744	.....	.....	846	3,173	1,000

HURON—*Con.*													
Zurich	139	125	.....	71	40	368	917	455	233	56	475	980	1,700
KENORA:													
Dryden	443	150	201	59	45	194	1,227	548	.....	50	624	986	1,100
Kenora	730	260	516	54	11	307	2,346	853	.....	320	886	1,868	578
KENT:													
Camden	134	170	192	74	275	758	3,363	774	.....	79	826	7,625	9,550
East Kent	218	120	140	104	133	858	2,064	785	681	120	881	2,504	7,355
Harwich	242	225	132	94	68	753	2,607	721	455	275	821	2,419	3,920
Howard	376	200	40	111	74	1,620	3,276	1,410	650	185	1,593	3,870	10,900
Orford	253	200	145	100	107	311	1,840	873	32	75	1,010	1,955	3,300
Raleigh and Tilbury	123	275	65	63	65	241	1,313	496	135	50	535	1,164	6,300
Romney and Wheatley	104	225	44	64	88	336	995	383	207	57	391	888	3,700
Wallaceburg	138	275	17	70	72	740	2,161	603	361	75	679	2,663	5,875
West Kent	439	550	280	90	84	3,645	6,902	1,956	2,031	293	2,079	14,297	22,600
LAMBTON:													
Bosanquet	138	165	38	59	62	308	1,087	456	214	50	513	1,051	3,310
Brooke and Alvinston	467	250	180	89	61	1,139	3,102	1,599	570	154	1,860	3,292	7,225
East Lambton	203	100	73	10	29	703	1,528	745	576	50	812	1,844	2,050
Florence	213	210	47	94	358	183	1,516	917	119	77	1,023	1,623	2,825
Forest	249	275	55	66	105	727	1,963	864	500	120	930	2,036	4,725
Moore	264	250	279	60	93	852	2,244	948	315	118	996	1,738	2,700
Petrolia and Enniskillen	348	500	190	75	42	800	2,613	1,196	381	125	1,382	2,814	3,150
Plympton and Wyoming	191	50	28	51	58	299	881	740	45	42	802	1,086	1,610
Sombra	114	250	33	41	36	101	755	345	174	50	367	895	1,060
West Lambton	414	375	906	130	94	1,915	5,465	1,399	1,585	360	1,487	7,013	11,450
LANARK:													
Dalhousie	102	50	.....	48	137	182	847	341	136	75	366	966	2,515
Lanark Township	149	50	162	53	38	248	1,316	486	10	79	554	1,727	3,400
Lanark Village and Bathurst	171	100	83	62	20	342	998	492	229	98	517	1,437	.....
Maberly	71	50	47	60	8	171	900	234	125	57	309	1,092	1,695
North Lanark	483	425	752	49	150	2,210	4,509	1,663	884	175	1,705	5,225	18,250
Pakenham	171	75	194	60	44	234	949	628	62	77	642	1,039	3,265
South Lanark	364	550	444	110	.....	1,436	3,286	1,145	406	165	1,175	3,286	11,600
LEEDS:													
Brockville	.....	150	1,027	.....	164	2,260	5,733	1,974	1,825	200	2,038	7,080	3,620
Delta	198	150	26	57	37	882	2,394	773	509	85	804	2,047	4,000
Frankville	193	150	25	225	17	283	930	601	183	50	637	1,200	450
Lansdowne	211	150	128	73	90	833	2,230	553	370	100	622	2,779	7,925
Lombardy	129	129	30	161	27	214	776	429	73	46	472	808	160
LENNOX AND ADDINGTON:													
Addington	256	1,000	173	72	37	330	2,274	906	105	50	946	4,099	3,450
Amherst Island	.....	525	57	62	18	86	1,045	192	62	30	209	934	606
Ernestown	202	450	80	57	56	667	1,943	669	618	115	683	1,802	2,725
Lennox	455	700	288	105	375	2,805	6,109	1,586	1,029	.....	1,685	4,709	.....

REPORTS OF AGRICULTURAL SOCIETIES IN ONTARIO, SHOWING RECEIPTS AND EXPENDITURES FOR THE YEAR 1922—*Con.*

Societies	Receipts							Expenditure					
	Legislative grants	Municipal grants	Cash donations	Members' fees retained from 1921	Members' fees paid in 1922	Gate receipts at exhibitions	Total actual receipts	Total prize money paid in cash	Special attractions	Officers' salaries	Total expenditure for agricultural purposes	Total actual expenditure	Value of land and buildings
LINCOLN:	$	$	$	$	$	$	$	$	$	$	$	$	$
Abingdon	76	150	210	60	31	124	1,174	437	30	30	439	1,043	1,200
Clinton	246	160	58	70	32	1,402	2,763	1,013	1,066	.....	1,098	3,313	.....
Monck	121	200	218	49	78	440	1,466	579	475	102	642	1,887	1,200
Niagara Town and Township	107	300	181	50	57	341	1,391	359	237	75	423	1,364	.....
Peninsular Central	99	200	202	44	165	176	2,074	348	691	100	359	2,909	5,000
MANITOULIN:													
Billings	254	40	.....	30	14	75	537	437	.....	35	478	605	2,575
Gore Bay	499	.....	36	53	18	217	1,025	600	.....	89	685	1,022	2,450
Howland	310	.....	.....	60	8	119	556	413	.....	52	431	565	1,200
Manitowaning	311	25	.....	36	19	112	541	447	40	65	467	706	1,820
Providence Bay	320	.....	.....	44	9	169	554	402	.....	30	463	596	235
MIDDLESEX:													
Caradoc	152	200	136	52	90	358	1,515	510	304	50	613	1,462	2,500
Delaware	173	.....	164	.....	78	255	1,142	460	208	.....	460	1,423	780
Dorchester	184	.....	273	.....	113	957	1,828	592	278	104	660	1,467	.....
London Township	164	265	269	84	68	346	1,692	539	165	77	613	1,586	2,750
McGillivray	64	.....	20	43	14	52	262	245	.....	25	272	411	.....
Melbourne	267	100	234	68	37	1,187	2,466	970	360	50	1,041	2,977	4,025
Mosa and Ekfrid	241	150	183	81	49	737	2,047	877	456	72	966	2,042	4,620
North Middlesex	106	.....	72	52	26	296	1,056	318	520	85	368	1,280	870
Parkhill	137	.....	288	60	20	579	1,918	433	320	60	433	2,115	4,797
Strathroy	458	290	426	70	71	2,032	5,760	1,691	2,049	156	1,713	6,438	17,000
Thorndale	200	135	375	56	80	270	1,382	577	350	60	657	1,279	2,500
Westminster	151	100	363	32	108	363	1,227	456	403	50	478	1,271	300
MUSKOKA:													
Baysville	230	25	72	34	6	16	389	325	.....	25	346	381	35
Gravenhurst and Muskoka	406	25	97	57	18	198	1,003	515	45	87	609	1,071	1,000
Medora and Wood	411	95	48	48	20	89	825	479	.....	52	586	855	.....
Morrison	154	40	5	31	37	73	430	243	30	20	245	418	985
North Muskoka	466	85	437	84	35	390	1,670	741	285	140	835	1,757	3,950

MUSKOKA—*Con.*													
South Muskoka	887	165	338	127	53	1,067	3,146	1,172	540	130	1,312	2,955	2,550
Stephenson and Watt	518	50	5	53	17	124	1,243	582	38	90	667	1,156	1,100
Stisted	200	.....	18	41	19	73	369	270	.....	22	285	356	44
NIPISSING:													
Astorville	124	.....	.....	21	22	26	202	157	.....	18	156	203	600
Bonfield	186	50	.....	43	16	.....	346	196	.....	30	229	379	1,350
East Nipissing	368	.....	84	33	5	134	667	539	50	90	557	786	.....
North Bay	371	1,000	.....	64	65	1,451	3,264	532	650	160	574	3,632	13,523
Sturgeon Falls	410	500	.....	49	68	468	2,660	526	265	210	576	1,945	10,050
Verner	466	50	.....	60	17	56	1,248	495	.....	20	532	4,276	.....
NORFOLK:													
Charlotteville	119	.....	31	5	137	364	765	374	36	87	421	753	5,050
Courtland	103	50	31	18	196	127	912	346	10	59	398	926	.....
Houghton	104	.....	50	34	110	329	731	406	.....	114	424	730	1,450
Norfolk County	748	.....	832	.....	707	5,771	10,533	2,707	1,998	300	2,811	11,728	43,000
North Walsingham	79	55	67	45	151	168	923	296	19	50	348	871	.....
Townsend	92	.....	19	30	67	349	1,411	312	84	.....	363	2,086	8,550
Windham	122	25	96	19	78	171	1,739	582	939	50	651	1,860	1,000
NORTHUMBERLAND:													
Alnwick	168	53	755	64	51	608	2,086	931	463	60	978	2,671	1,300
Brighton	220	119	131	103	25	459	1,653	928	236	55	933	1,803	.....
Cobourg Central	(No fair)												
Colborne	338	106	156	59	61	1,132	2,533	1,251	146	100	1,216	2,379	1,000
Cramahe	161	101	86	60	11	220	887	436	80	45	425	730	835
Percy Township	575	381	424	129	37	1,701	3,801	2,025	75	90	2,069	3,785	10,500
Seymour	384	521	318	94	122	1,305	3,422	1,678	455	131	1,806	5,158	6,850
Wooler	184	183	56	52	16	514	1,088	507	75	40	567	936	1,275
ONTARIO:													
Beaverton	242	1,000	150	67	93	643	2,920	1,303	805	135	1,356	3,104	.....
Brock	168	275	269	53	66	313	1,498	656	350	66	694	1,604	.....
Pt. Perry, Reach and Scugog	214	295	109	69	.....	366	1,522	798	339	69	798	1,680	1,558
Rama	47	135	17	18	56	35	406	220	.....	15	222	396	897
Scott	122	225	184	38	43	157	1,342	421	32	52	460	1,205	.....
South Ontario	579	750	666	115	70	3,300	8,319	2,365	1,787	310	3,372	8,390	12,200
Uxbridge	248	175	24	58	61	1,157	2,483	1,091	370	179	1,093	2,926	.....
OXFORD:													
Drumbo	324	100	78	61	73	662	2,307	1,155	75	102	1,207	2,764	600
East Nissouri	123	150	90	21	63	190	958	261	171	54	323	986	.....
Ingersoll N. and W. Oxford	171	150	110	42	103	875	2,171	654	368	158	700	2,532	3,100
North Norwich	194	235	322	50	197	453	2,124	878	606	100	880	2,370	2,100
South Norwich	160	150	138	.....	107	79	1,151	467	110	64	541	1,173	.....
Tavistock	244	314	20	79	42	587	1,943	821	.....	104	849	1,427	.....
Tillsonburg and Dereham	239	150	340	41	361	3,889	8,484	695	3,533	131	827	7,907	8,000
West Zorra and Embro	183	100	.....	63	218	594	1,188	547	72	47	577	1,430	550
Woodstock	659	475	762	91	254	2,683	7,325	2,266	1,340	250	2,415	6,766	20,200

Societies.	Receipts.							Expenditure.					
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PARRY SOUND:	$	$	$	$	$	$	$	$	$	$	$	$	$
Armour, Ryerson and Burk's Falls	593	75	200	68	17	232	1,545	912	.....	100	1,027	1,819	3,200
Christie	413	50	15	64	7	25	737	498	.....	66	595	873	.....
Loring	268	.....	29	49	15	39	570	339	.....	27	410	594	725
Machar	217	73	50	28	20	71	885	376	35	48	447	898	2,825
Magnetawan	450	40	86	60	50	72	903	525	.....	62	602	871	1,155
McKellar	553	25	.....	69	16	139	1,132	728	.....	56	804	1,067	1,850
McMurrich	390	25	105	35	13	70	850	422	22	80	490	876	1,200
Parry Sound	(No Fair)												
Perry	437	50	133	53	13	77	1,131	486	.....	80	600	1,050	2,420
Powassan	469	.....	116	62	8	242	1,307	550	20	60	632	1,202	2,936
Rosseau	.....	.....	27	.....	30	86	560	614	.....	.....	755	872	.....
Strong	568	25	180	45	10	118	912	657	15	.....	714	873	1,910
Trout Creek	158	.....	18	60	50	106	844	259	.....	40	292	753	1,455
United Townships	375	.....	54	60	9	64	804	412	.....	44	477	806	900
PEEL:													
Albion and Bolton	276	350	164	84	64	128	1,585	894	182	60	976	2,098	2,200
Caledon	182	270	164	77	150	306	1,816	543	246	.....	644	1,239	530
Cooksville	252	150	560	137	130	705	2,209	1,298	50	150	1,361	2,284	1,850
Peel	645	470	575	91	91	2,062	5,799	2,364	516	454	2,403	6,376	21,100
Toronto Gore	64	130	.....	21	62	.....	280	233	.....	10	243	291	.....
Toronto Township	301	225	556	124	30	336	2,102	818	440	8	892	2,055	3,000
PERTH:													
Elma	123	91	57	69	247	162	1,136	405	125	77	405	905	2,400
Fullarton, Logan and Hibbert	284	245	209	120	80	413	1,804	890	60	75	983	1,674	3,659
Kirkton	233	284	150	88	255	279	1,657	826	47	104	939	1,666	2,495
Listowel	132	36	55	59	58	787	1,834	540	825	80	649	1,814	2,025
Mornington	181	68	15	76	277	739	1,782	637	386	127	691	1,786	5,500
South Perth	218	305	9	72	191	503	2,145	764	238	110	780	1,833	6,500
Stratford	465	270	261	148	395	2,648	7,053	2,402	2,256	250	2,516	7,129	.....

PETERBOROUGH:													
East Peterborough	471	175	270	83	130	1,247	3,299	1,754	335	154	1,893	3,659	5,227
Galway and Somerville	75	185	62	28	12	139	647	157	257	100	157	630	2,600
Lakefield	171	190	115	62	11	281	1,213	581	215	50	693	1,335	5,000
Otonabee	165	75	37	94	23	234	914	425	197	.....	489	911	.....
Peterborough Industrial	800	4,238	1,309	308	188	8,335	19,494	6,466	4,463	325	6,576	18,646	40,894
PRESCOTT:													
Alfred	152	100	23	91	50	486	1,290	546	240	50	610	1,392	2,700
South Plantagenet	138	100	121	38	22	437	917	553	50	42	565	838	300
Vankleek Hill	304	100	333	83	194	1,245	3,165	1,520	463	142	1,552	3,273	8,100
PRINCE EDWARD:													
Ameliasburg	180	200	86	94	134	230	1,446	587	20	77	657	1,285	.....
Prince Edward	800	700	397	74	1,878	2,907	19,270	3,350	2,318	210	3,524	12,021	40,900
Sophiasburg	119	150	48	45	29	194	678	499	.....	35	532	768	.....
RAINY RIVER:													
Atwood	.....	50	625	.....	97	99	1,027	560	175	50	670	1,425	.....
Rainy River Valley	812	650	1,410	100	38	792	4,710	1,416	650	230	1,498	4,067	12,065
RENFREW:													
Arnprior	306	465	382	93	54	2,530	4,836	1,361	1,533	.....	1,607	6,222	10,600
Cobden	278	525	342	130	32	416	2,363	1,042	222	100	1,123	2,311	9,300
North Renfrew	404	325	382	112	59	1,159	4,014	1,709	259	183	1,829	4,570	19,250
Renfrew	800	785	800	.....	588	5,303	11,074	3,390	940	200	3,490	9,582	46,825
RUSSELL:													
Casselman	63	135	35	23	23	50	700	124	.....	55	133	785	5,300
Clarence	87	.....	.....	48	22	163	325	204	.....	50	216	792	1,470
Russell	307	200	330	95	39	949	2,763	1,220	337	105	1,285	2,412	12,750
SIMCOE:													
Alliston	123	.....	10	72	96	616	1,493	826	125	20	852	2,545	.....
Barrie	527	500	944	129	59	1,547	4,697	1,839	251	235	1,989	5,288	.....
Beeton	160	60	291	66	101	261	1,426	654	398	98	666	2,040	3,200
Bradford and W. Gwillimbury	175	200	182	55	99	355	2,404	698	1,003	79	726	3,273	.....
Coldwater	195	140	196	63	36	844	1,788	646	425	77	714	1,907	2,585
Cookstown	189	125	112	115	37	401	1,307	701	243	70	727	1,439	1,030
East Simcoe	266	.....	234	93	93	682	1,829	920	392	206	973	2,681	1,450
Flos Township	249	100	151	90	31	1,009	2,448	898	627	150	915	2,895	5,975
Nottawasaga and Gt. Northern	366	500	299	104	65	1,985	4,399	1,410	615	225	1,502	3,925	2,400
Oro	174	50	179	80	82	453	1,249	679	129	93	697	1,111	900
Tiny and Tay	319	200	231	.....	99	1,235	2,867	872	125	150	1,014	2,476	.....
STORMONT:													
Cornwall	467	275	298	107	288	2,452	4,144	1,903	1,197	400	1,957	5,087	4,300
Finch	79	50	1	28	1	84	413	263	3	10	274	548	350
Roxborough	286	125	359	61	69	694	1,723	916	45	37	967	1,559	.....
Stormont	187	.....	288	.....	111	427	1,087	825	7	22	850	1,148	525

REPORTS OF AGRICULTURAL SOCIETIES IN ONTARIO, SHOWING RECEIPTS AND EXPENDITURES FOR THE YEAR 1922.—*Con.*

Societies.	Receipts.							Expenditure.					
	Legislative grants	Municipal grants	Cash donations	Members' fees retained from 1921	Members' fees paid in 1922	Gate receipts at exhibitions	Total actual receipts	Total prize money paid in cash	Special attractions	Officers' salaries	Total expenditure for agricultural purposes	Total actual expenditure	Value of land and buildings
SUDBURY:	$	$	$	$	$	$	$	$	$	$	$	$	$
Chelmsford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Martland and Cosby	126	.....	.....	33	16	.....	170	199	.....	15	199	216	100
Massey	388	.....	.....	63	34	278	844	457	100	110	486	900	2,950
Warren	415	.....	11	40	28	102	827	482	72	50	527	1,354	2,550
TEMISKAMING:													
Charlton	323	.....	.....	40	34	99	745	341	30	104	435	724	1,985
Cochrane	446	250	266	38	80	173	1,200	254	.....	100	312	685	2,248
Englehart	494	100	.....	57	.....	.....	1,321	718	.....	75	768	1,388	.....
Matheson	.....	.....	5	5	.....	22	597	15	.....	.....	15	590	4,500
New Liskeard	567	150	565	63	73	1,027	3,076	1,236	585	204	1,348	3,099	500
Porcupine	99	350	306	.....	122	150	1,114	185	26	75	191	591	77
Porquis Junction	90	.....	50	17	46	29	368	135	.....	.....	143	667	1,500
THUNDER BAY:													
Oliver	529	50	193	117	45	1,173	3,003	812	411	181	888	3,144	5,925
Ware Township	69	.....	135	25	16	14	530	85	37	.....	87	574	415
West Algoma	900	.....	130	154	128	3,758	9,177	2,032	1,951	655	2,338	11,009	44,854
Whitefish Valley	195	65	117	33	36	374	2,012	228	.....	75	292	1,812	2,000
VICTORIA:													
Fenelon	152	125	176	41	20	195	1,089	506	160	25	560	1,098	.....
Mariposa	99	100	164	38	81	63	784	353	29	40	353	654	.....
South Victoria	800	200	1,045	110	55	7,768	15,493	4,396	3,808	440	4,423	15,624	32,711
Verulam	299	125	76	92	28	636	2,058	770	112	53	838	1,921	6,725
WATERLOO:													
Elmira and Woolwich	170	425	162	74	46	1,510	2,731	656	460	100	658	2,022	4,900
South Waterloo	529	825	156	.....	331	1,426	4,233	1,840	209	227	1,974	4,346	1,500
Wellesley and North Easthope	262	549	76	95	65	364	2,177	911	360	75	946	2,355	3,200
Wilmot	436	570	473	104	27	767	2,818	1,109	55	256	1,177	2,492	300
WELLAND:													
Bertie	140	307	852	36	285	2,487	5,355	932	2,705	100	1,051	5,668	.....
Fenwick	291	475	161	67	157	1,483	4,492	953	980	100	1,032	4,608	9,200

WELLAND—*Con.*													
Thorold Town and Township	244	1,408	321	55	78	739	4,027	1,186	754	145	1,225	4,563	13,100
Welland	491	863	411	75	603	4,451	9,566	2,184	3,151	177	2,265	11,622	30,600
WELLINGTON:													
Arthur	240	85	149	102	34	662	5,160	737	289	95	764	5,817	14,500
Centre Wellington	328	165	220	116	89	869	2,555	1,052	356	171	1,105	2,698	1,000
Erin	274	50	114	142	66	945	2,364	975	203	125	1,054	2,389	2,400
Mount Forest	328	60	144	191	93	612	2,108	1,165	225	75	1,254	2,745	3,725
Palmerston	146	15	142	71	36	303	972	510	105	45	553	949	3,060
Peel and Drayton	178	80	226	66	61	403	1,337	688	309	74	688	1,304	2,300
Puslinch	151	125	.....	55	514	248	1,489	512	.....	81	571	1,535	200
Rockwood	283	100	430	74	83	478	2,007	865	125	104	959	2,114	3,920
West Wellington	184	100	172	61	87	300	1,381	733	180	60	783	1,337	1,260
WENTWORTH:													
Ancaster	228	300	351	61	137	969	2,572	942	536	215	1,038	3,791	7,550
Binbrook	185	225	292	79	60	524	2,270	583	592	75	617	2,134	5,225
Rockton	317	175	186	.....	239	1,084	2,964	1,055	315	130	1,079	2,899	151
West Flamboro	139	325	254	60	61	388	1,592	601	123	87	633	1,532	86
YORK:													
Markham and East York	616	300	824	123	80	1,913	6,092	2,176	1,225	235	2,114	6,701	29,000
Newmarket	507	100	591	125	92	2,312	5,077	1,815	1,508	175	1,815	5,066	15,500
Queensville	105	75	185	41	80	61	605	334	.....	35	334	616	.....
Richmond Hill	265	95	392	63	71	666	2,147	1,035	160	104	1,092	2,217	4,275
Scarboro	309	100	865	97	71	452	2,592	1,014	50	125	1,103	2,726	5,984
Schomberg	255	85	256	69	12	673	1,928	777	415	80	779	1,763	3,000
Sutton	202	250	504	60	171	991	2,799	628	883	75	655	2,317	25
Weston, York and Etobicoke	346	350	350	74	81	1,363	4,814	1,255	620	150	1,336	3,745	2,000
Woodbridge	759	375	236	102	90	1,802	4,940	2,975	100	260	3,115	6,367	16,200
INDIAN SOCIETIES:													
Garden River	50	125	.....	32	14	38	293	230	.....	.....	230	306	.....
Sarnia Reserve	50	115	5	33	28	306	785	321	166	25	373	754	.....
Six Nations	100	.....	21	54	60	2,152	3,370	753	802	160	775	3,092	4,400
United Indian	(No Returns)												
	85,803	73,723	62,626	21,944	32,157	257,483	766,846	279,651	127,625	33,375	299,522	682,827	1,469,026

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
ALGOMA:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Bruce Mines	56 25	161 00	54 50	2 50	223 15	497 40
Central Algoma	140 00	300 00	95 00	.....	1,043 80	1,578 80
Iron Bridge	23 00	21 50	24 00	5 50	92 10	166 10
Johnston and Aberdeen	25 50	7 75	11 00	.....	51 75	96 00
North Shore	23 75	35 25	13 75	4 25	80 25	157 25
St. Joseph Island	33 75	22 00	5 00	1 00	198 00	259 75
Thessalon	104 00	80 00	40 00	23 00	118 75	365 75
BRANT:						
Onondaga	152 50	97 50	31 00	42 50	288 10	611 60
Paris	342 00	228 00	195 00	112 00	488 00	1,365 00
South Brant	312 00	439 00	122 00	64 00	627 00	1,564 00
BRUCE:						
Arran and Tara	491 00	283 00	94 00	79 00	477 00	1,424 00
Carrick	291 00	168 00	61 50	36 50	416 05	973 05
Chesley	279 50	87 50	40 00	4 00	449 40	860 40
Eastnor	61 00	59 50	15 50	10 25	184 25	330 50
Hepworth	144 25	105 75	31 50	16 50	267 45	565 45
Huron Township	120 50	124 50	36 25	21 50	261 50	564 25
Kincardine	161 00	96 00	43 75	19 00	205 30	525 05
Lucknow	188 50	140 50	19 50	37 25	330 90	716 65
North Bruce and Saugeen	190 00	130 00	38 00	20 00	293 50	671 50
Paisley	237 50	142 00	56 50	7 00	420 56	863 56
Pinkerton	82 50	54 50	9 75	14 50	210 55	371 80
Teeswater	269 00	278 00	28 50	32 25	426 90	1,034 65
Tiverton	164 00	79 50	30 75	6 00	266 00	546 25
Underwood	132 50	73 50	48 50	20 00	179 25	453 75
Wiarton	118 50	120 50	93 00	27 00	270 05	629 05
CARLETON:						
Carleton County	753 00	560 00	175 00	317 00	606 25	2,411 25
Carp	385 00	120 00	28 00	23 00	354 25	910 25
Fitzroy	177 12	54 00	17 25	17 69	312 50	578 56
Metcalfe	462 50	297 00	80 40	67 70	535 65	1,443 25
DUFFERIN:						
Dufferin	426 00	185 00	108 00	35 00	492 06	1,246 06
Dufferin Central	221 00	231 00	58 15	9 00	501 90	1,021 05
East Luther	178 50	50 50	52 00	7 00	521 65	809 65
DUNDAS:						
Dundas	262 00	.....	.....	.....	.....	262 00
Mountain	101 00	208 50	10 00	7 75	288 60	615 85
Winchester	164 50	186 65	15 50	23 00	354 00	743 65
DURHAM:						
Cartwright	132 25	38 00	60 50	21 00	212 30	464 05
Clarke Township	425 00	209 00	85 00	50 00	363 75	1,132 75
Millbrook	365 00	185 00	39 50	41 00	397 90	1,028 40
Port Hope	329 00	163 00	156 00	27 50	718 00	1,393 50
West Durham	354 00	277 00	174 00	64 00	587 90	1,456 90
ELGIN:						
Aldboro	239 50	145 30	94 00	30 20	400 95	909 95
Aylmer and East Elgin	228 50	188 00	10 00	23 00	320 90	770 40
Shedden	116 50	70 50	22 00	4 00	67 55	280 55
South Dorchester	132 50	68 50	20 00	3 00	420 95	644 95
Straffordville	51 00	58 25	12 00	6 50	183 65	311 40
West Elgin	297 02	462 72	93 99	31 99	563 96	1,449 68
Yarmouth and Belmont	185 00	108.60	25 50	16 00	224 30	559 40
ESSEX:						
Amherstburg, Anderdon & Malden	158 00	182 50	99 50	245 50	271 25	956 75
Colchester South	158 25	165 25	68 25	131 50	193 70	716 95
Comber	(No returns)	.....	.....	.....	.....	.....
Essex County	248 00	324 50	244 50	381 00	775 75	1,973 75
Mersea, Leamington and S. Gosfield	330 00	508 50	350 00	206 00	870 90	2,265 40

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
FRONTENAC:						
Kennebec	18 50	52 25	18 00	11 00	71 85	171 60
Kingston Industrial	435 00	894 00	186 00	85 00	1,754 18	3,354 18
Parham	42 50	43 00	1 50	2 75	256 35	346 10
Storrington	47 75	53 50	24 40	11 00	109 35	246 00
Wolfe Island	68 50	40 50	11 50	10 00	159 05	289 55
GLENGARRY:						
Glengarry	178 50	206 00	30 75	8 00	304 50	727 75
Kenyon	338 00	226 50	15 00	.....	422 50	1,002 00
St. Lawrence Valley	391 50	320 00	25 00	26 00	324 30	1,084 80
GRENVILLE:						
Kemptville	113 00	135 25	6 00	13 20	156 35	423 80
Merrickville	260 00	21 50	4 00	9 10	188 70	483 30
Spencerville	51 00	87 50	13 00	4 00	324 65	480 15
GREY:						
Ayton	113 00	49 00	13 25	15 00	134 65	324 90
Collingwood Township	282 00	197 50	50 00	10 00	233 20	772 70
Desboro	234 50	163 00	44 75	28 00	277 35	747 60
East Grey	87 00	94 50	40 50	17 25	203 35	442 60
Egremont	147 50	138 75	80 45	22 00	294 00	682 70
Hanover, Bentinck & Brant	284 50	134 50	116 50	47 00	297 00	879 50
Holland	399 00	149 00	38 00	42 00	349 35	977 35
Keppel and Sarawak	71 00	39 00	17 00	.....	169 50	296 50
Kilsyth	253 00	260 00	87 00	50 00	289 75	939 75
Markdale	243 82	228 00	116 50	40 00	343 23	971 55
Meaford and St. Vincent	241 00	227 50	56 00	25 00	599 70	1,149 20
Normanby	64 50	40 75	10 50	17 75	170 20	303 70
Osprey	85 00	118 50	51 00	14 00	341 05	609 55
Owen Sound	670 00	435 00	106 25	10 00	740 30	1,961 55
Priceville	25 50	30 50	32 00	9 00	123 75	220 75
Proton	240 00	96 00	45 50	10 00	353 65	745 15
Rocklyn	242 50	138 00	41 00	.....	244 70	666 20
South Grey	86 00	22 00	41 50	11 50	304 85	465 85
Sydenham	113 00	117 00	19 00	15 00	273 50	537 50
Walter's Falls	204 00	255 00	62 00	45 00	319 00	885 00
HALDIMAND:						
Caledonia	350 00	501 00	235 00	147 50	702 75	1,936 25
Canboro	22 75	19 25	11 75	5 75	126 70	186 20
Dunnville	98 00	96 00	39 75	7 00	265 64	506 39
Haldimand	117 00	128 40	45 75	13 25	249 15	553 55
Southern Branch	46 00	4 25	.....	.....	190 10	240 35
Walpole	126 00	36 00	44 00	2 00	335 00	543 00
HALIBURTON:						
Glamorgan	10 00	6 50	7 25	.....	79 30	103 05
Haliburton	48 50	64 50	8 50	12 00	213 05	346 55
Minden	92 00	58 20	42 00	13 50	249 05	454 75
HALTON:						
Acton	323 00	145 00	62 00	54 50	448 20	1,032 70
Equesing	306 00	87 00	60 00	40 50	429 45	922 95
Halton	410 00	297 00	65 00	24 00	657 20	1,453 20
Nelson and Burlington	280 50	97 00	67 00	24 00	510 75	979 25
Trafalgar	1,754 00	523 00	215 00	74 00	1,504 38	4,070 38
HASTINGS:						
Bancroft	85 00	107 00	60 50	6 50	312 25	571 25
Belleville	195 00	326 00	126 50	55 00	516 25	1,218 75
Frankford	206 00	110 00	40 00	50 00	226 85	632 85
Madoc	234 50	140 75	35 50	20 70	386 90	818 35
Marmora	340 00	126 80	31 00	20 00	387 95	905 75
Maynooth	52 50	46 50	22 75	5 50	111 00	238 25
Shannonville	92 00	62 50	62 50	24 50	173 70	415 20
Stirling	158 25	199 75	18 00	21 75	475 85	873 60
Tweed	251 00	277 19	69 59	25 75	368 64	992 17
Wollaston	90 00	200 00	112 00	50 00	259 65	711 65

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
HURON:						
Bayfield	107 00	39 00	39 50	15 50	215 00	416 00
Blyth	196 00	115 50	8 50	.....	284 50	604 50
Dungannon	87 00	56 00	10 50	20 50	206 75	380 75
East Huron	203 50	179 00	18 25	31 25	464 60	896 60
Exeter	173 00	106 00	44 00	20 00	437 30	780 30
Goderich Industrial	145 00	72 00	26 00	23 00	536 85	802 85
Howick	168 00	101 75	35 25	31 50	356 95	693 45
Seaforth	144 00	82 00	58 00	26 00	344 15	654 15
Turnberry	212 50	68 00	45 00	26 00	392 55	744 05
Zurich	101 00	63 50	26 75	12 00	252 00	455 25
KENORA:						
Dryden	38 00	107 00	11 00	28 00	364 50	548 50
Kenora	60 00	65 00	.....	.....	727 75	852 75
KENT:						
Camden	203 00	107 75	62 00	64 50	336 60	773 85
East Kent	260 00	107 50	113 00	52 00	252 60	785 10
Harwich	128 50	128 00	61 00	66 00	337 05	720 55
Howard	300 00	210 00	210 00	190 00	499 57	1,409 57
Orford	233 00	149 50	106 00	62 50	322 00	873 00
Raleigh and Tilbury	118 00	63 00	68 00	45 00	201 80	495 80
Romney and Wheatley	54 25	50 00	89 20	47 25	142 20	382 90
Wallaceburg	112 00	65 50	62 00	63 75	299 30	602 55
West Kent	328 00	457 50	311 50	321 00	538 39	1,956 39
LAMBTON:						
Bosanquet	74 75	67 00	.....	4 50	310 00	456 25
Brooke and Alvinston	381 00	193 75	87 25	6 25	930 95	1,599 20
East Lambton	138 50	130 00	66 80	29 00	381 10	745 40
Florence	277 65	201 85	61 15	62 15	314 05	916 85
Forest	136 00	182 50	67 50	45 00	433 40	864 40
Moore	329 00	195 50	55 00	47 00	321 65	948 15
Petrolia and Enniskillen	254 00	180 00	193 75	51 00	516 80	1,195 55
Plympton and Wyoming	163 50	37 75	125 75	47 65	364 95	739 60
Sombra	100 00	30 75	38 50	8 50	166 90	344 65
West Lambton	266 00	165 50	156 50	106 50	704 20	1,398 70
LANARK:						
Dalhousie	63 00	49 50	5 75	1 50	221 70	341 45
Lanark Township	93 25	88 75	16 50	11 75	275 60	485 85
Lanark Village & Bathurst	142 00	32 00	30 00	31 00	257 28	492 28
Maberly	50 75	46 50	.....	9 25	127 30	233 80
North Lanark	686 50	239 00	70 00	47 00	620 40	1,662 90
Pakenham	295 00	45 00	20 00	30 00	238 08	628 08
South Lanark	241 00	464 00	55 00	32 00	353 38	1,145 38
LEEDS:						
Brockville	369 00	682 00	47 00	71 00	804 85	1,973 85
Delta	123 30	253 35	49 50	33 75	313 45	773 35
Frankville	106 25	140 25	66 75	10 50	277 30	601 05
Lansdowne	81 00	197 50	10 50	14 50	249 79	553 29
Lombardy	161 85	29 50	9 35	.....	228 14	428 84
LENNOX AND ADDINGTON:						
Addington	353 50	269 00	3 00	27 00	253 85	906 35
Amherst Island	57 15	38 90	14 25	6 75	75 20	192 25
Ernestown	161 50	97 50	67 00	21 50	321 50	669 00
Lennox	315 00	286 00	171 00	84 00	730 15	1,586 15
LINCOLN:						
Abingdon	32 00	65 50	77 55	4 75	257 17	436 97
Clinton	130 00	166 00	120 00	40 00	556 75	1,012 75
Monck	114 25	104 00	86 00	49 50	225 20	578 95
Niagara Town & Township	73 00	.....	.....	.....	285 55	358 55
Peninsular Central	76 00	8 00	13 50	15 50	235 50	348 50
MANITOULIN:						
Billings	69 50	79 00	27 50	2 00	259 11	437 11
Gore Bay	144 00	73 50	74 50	5 00	302 90	599 90

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
MANITOULIN ISLAND:—*Con.*						
Howland	70 50	71 00	23 50	9 25	238 75	413 00
Manitowaning	49 25	124 75	22 25	7 50	243 25	447 00
Providence Bay	71 00	76 25	13 00	3 00	239 00	402 25
MIDDLESEX:						
Caradoc	161 00	30 00	28 00	15 75	275 30	510 05
Delaware	60 50	86 50	53 25	30 50	229 65	460 40
Dorchester	218 00	169 00	17 00	.....	187 75	591 75
London Township	191 00	91 00	45 00	2 75	209 25	539 00
McGillivray	73 00	16 25	14 00	3 00	139 00	245 25
Melbourne	397 00	141 50	52 00	17 50	361 70	969 70
Mosa and Ekfrid	263 02	207 75	46 25	15 75	344 57	877 34
North Middlesex	69 00	53 00	14 00	5 50	176 65	318 15
Parkhill	68 50	55 00	18 75	10 25	280 75	433 25
Strathroy	455 00	283 50	225 00	53 00	674 10	1,690 60
Thorndale	110 50	195 00	31 75	6 00	234 25	577 50
Westminster	104 00	69 00	26 00	6 00	250 75	455 75
MUSKOKA:						
Baysville	28 50	73 50	31 50	11 50	179 85	324 85
Gravenhurst and Muskoka	97 50	83 75	5 75	2 00	326 25	515 25
Medora and Wood	61 00	91 00	.....	14 00	313 00	479 00
Morrison	71 50	30 75	13 00	6 50	121 35	243 10
North Muskoka	81 00	69 25	25 00	16 00	549 75	741 00
South Muskoka	206 00	179 00	75 00	65 00	647 25	1,172 25
Stephenson and Watt	78 00	81 00	38 00	16 00	369 50	582 50
Stisted	43 00	42 25	27 75	10 50	146 25	269 75
NIPISSING:						
Astorville	34 00	28 00	12 00	8 00	75 00	157 00
Bonfield	12 00	42 00	12 00	.....	129 70	195 70
East Nipissing	107 00	74 00	.....	19 00	338 75	538 75
North Bay	68 00	29 00	28 00	.....	407 00	532 00
Sturgeon Falls	145 00	155 00	30 50	15 75	180 25	526 50
Verner	46 50	167 50	42 00	44 00	194 70	494 70
NORFOLK:						
Charlotteville	87 75	43 00	8 00	20 00	215 35	374 10
Courtland	56 25	32 25	15 00	6 25	236 18	345 93
Houghton	94 75	113 50	29 50	16 50	152 00	406 25
Norfolk County	267 00	952 50	239 00	108 00	1,140 25	2,706 75
North Walsingham	59 25	31 00	15 50	10 00	180 15	295 90
Townsend	87 00	55 00	11 50	6 00	152 95	312 45
Windham	123 75	76 75	12 75	6 00	362 85	582 10
NORTHUMBERLAND:						
Alnwick	183 50	149 00	64 00	12 50	521 70	930 70
Brighton	246 00	180 50	123 50	31 50	347 00	928 50
Cobourg Central	(No fair)	.....	.....	.....	.....	.....
Colborne	508 00	122 25	81 75	37 00	427 35	1,176 35
Cramahe	191 25	121 70	24 75	13 25	85 30	436 25
Percy Township	862 50	242 50	171 50	24 50	724 45	2,025 45
Seymour	283 50	391 00	151 50	23 00	828 55	1,677 55
Wooler	244 25	90 75	22 75	.....	149 20	506 95
ONTARIO:						
Beaverton	362 00	250 00	148 00	68 00	475 95	1,303 95
Brock	112 00	187 00	62 00	34 50	260 25	655 75
Port Perry, Reach & Scugog	253 00	98 00	70 00	38 00	339 30	798 30
Rama	77 50	28 75	10 00	12 00	91 40	219 65
Scott	128 00	104 00	21 25	22 00	145 75	421 00
South Ontario	696 00	485 00	222 00	64 00	898 25	2,365 25
Uxbridge	418 00	300 00	114 00	77 00	182 30	1,091 30
OXFORD:						
Drumbo	383 00	227 00	114 53	34 50	396 00	1,155 03
East Nissouri	88 50	30 00	12 00	.....	130 80	261 30
Ingersoll, North and West Oxford	231 00	99 50	12 00	13 00	298 15	653 65

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
OXFORD:—*Con.*						
North Norwich	199 50	171 00	28 75	20 50	458 65	878 40
South Norwich	105 00	44 00	32 75	.....	285 75	467 50
Tavistock	242 00	53 00	84 00	71 00	371 00	821 00
Tillsonburg and Dereham	262 00	67 00	41 00	11 00	313 85	694 85
West Zorra and Embro	198 00	56 00	21 50	23 00	248 62	547 12
Woodstock	410 00	539 00	140 00	87 00	1,090 20	2,266 20
PARRY SOUND:						
Armour, Ryerson and Burk's Falls	178 00	215 00	70 00	46 00	402 75	911 75
Christie	124 00	56 00	30 00	6 50	282 00	498 50
Loring	38 00	49 25	53 50	7 50	191 10	339 35
Machar	62 00	48 50	30 00	8 00	227 15	375 65
Magnetawan	73 50	89 30	9 00	16 00	336 90	524 70
McKellar	111 50	122 50	48 75	19 25	426 00	728 00
McMurrich	78 00	97 75	21 50	20 00	204 40	421 65
Parry Sound	(No fair)	.....	.....	.....	.....	.....
Perry	63 50	84 40	38 00	14 00	286 25	486 15
Powassan	93 50	96 00	64 50	12 00	284 10	550 10
Rosseau	155 00	95 00	13 50	4 50	346 00	614 00
Strong	95 25	125 00	33 50	5 00	398 72	657 47
Trout Creek	45 75	43 00	21 00	6 75	143 15	259 65
United Townships	29 50	93 25	19 00	9 00	261 25	412 00
PEEL:						
Albion and Bolton	283 00	209 00	57 00	50 00	295 50	894 50
Caledon	106 30	80 50	55 75	18 60	282 00	543 15
Cooksville	587 00	96 00	34 00	22 00	559 00	1,298 00
Peel	625 00	398 00	173 00	114 50	1,054 00	2,364 50
Toronto Gore	228 00	25 00	.....	.....	.....	253 00
Toronto Township	313 00	74 00	63 00	20 00	348 00	818 00
PERTH:						
Elma	119 10	37 65	10 00	25 90	212 45	405 10
Fullarton, Logan & Hibbert	167 50	145 00	48 00	39 00	490 25	889 75
Kirkton	200 00	263 50	30 50	14 00	317 95	825 95
Listowel	160 00	45 00	19 00	36 00	280 25	540 25
Mornington	188 00	124 25	14 50	36 00	274 25	637 00
South Perth	159 00	102 00	69 00	49 00	384 55	763 55
Stratford	461 00	532 00	219 00	127 50	1,062 70	2,402 20
PETERBOROUGH:						
East Peterborough	349 50	379 75	151 25	54 00	819 55	1,754 05
Galway and Somerville	21 50	21 25	8 50	2 00	104 10	157 35
Lakefield	115 00	180 00	30 00	29 50	226 50	581 00
Otonabee	141 00	71 50	27 75	17 25	167 75	425 25
Peterborough Industrial	2,245 00	1,581 00	629 00	308 00	1,703 30	6,466 30
PRESCOTT:						
Alfred	106 00	173 00	29 00	37 00	201 10	546 10
South Plantagenet	201 50	157 25	24 50	32 50	137 60	553 35
Vankleek Hill	305 00	628 50	86 00	54 00	446 45	1,519.95
PRINCE EDWARD:						
Ameliasburg	67 00	38 75	37 50	8 50	435 10	586 85
Prince Edward	977 60	525 00	252 00	106 00	1,489 55	3,350 15
Sophiasburg	149 00	58 25	23 50	20 00	247 85	498 60
RAINY RIVER:						
Atwood	106 75	103 50	21 00	22 00	346 40	599 65
Rainy River Valley	352 00	285 00	70 00	55 00	654 15	1,416 15
RENFREW:						
Arnprior	390 30	191 60	48 95	11 00	719 00	1,360 85
Cobden	337 10	176 75	60 00	55 00	413 25	1,042 10
North Renfrew	435 50	449 00	91 00	85 00	648 35	1,708 85
Renfrew	1,500 00	600 00	170 00	110 00	1,009 74	3,389.74
RUSSELL:						
Casselman	32 00	21 25	.....	5 50	64 80	123 55
Clarence	33 25	54 75	14 25	9 50	92 25	204 00
Russell	330 00	176 00	139 00	29 00	546 50	1,220 50

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
SIMCOE:						
Alliston	199 85	57 60	41 40	23 10	504 35	826 30
Barrie	467 00	422 00	229 00	32 00	689 25	1,839 25
Beeton	203 00	102 00	82 00	21 00	246 15	654 15
Bradford & W.Gwillimbury	81 00	39 00	132 00	63 00	382 70	697 70
Coldwater	175 00	90 00	60 00	.....	320 75	645 75
Cookstown	215 00	60 00	64 00	23 50	338 40	700 90
East Simcoe	158 00	118 00	137 95	36 00	470 50	920 45
Flos Township	230 50	186 00	66 00	40 00	375 50	898 00
Nottawasaga and Great Northern	187 00	260 00	227 00	73 00	662 90	1,409 90
Oro	205 00	127 00	63 00	24 00	259 98	678 98
Tiny and Tay	216 00	198 00	48 00	26 00	479 50	967 50
STORMONT						
Cornwall	281 80	418 50	98 75	65 70	1,038 20	1,902 95
Finch	68 20	55 10	.....	20 00	120 10	263 40
Roxborough	340 00	258 25	33 00	7 00	277 30	915 55
Stormont	259 00	234 50	31 00	27 00	273 25	824 75
SUDBURY:						
Chelmsford	.....	.....	.....	.....	.....	.....
Martland and Cosby	50 00	48 00	6 00	6 00	89 00	199 00
Massey	58 50	127 25	20 00	9 00	242 50	457 25
Warren	122 00	194 00	27 00	60 00	79 28	482 28
TEMISKAMING:						
Charlton	39 00	32 50	21 50	.....	248 40	341 40
Cochrane	67 50	45 00	15 00	4 50	122 50	254 50
Englehart	95 00	117 50	21 50	.....	484 30	718 30
Matheson	.....	.....	.....	.....	14 55	14 55
New Liskeard	188 50	178 50	46 50	23 00	799 70	1,236 20
Porcupine	42 00	20 00	.....	3 00	120 25	185 25
Porquis Junction	15 50	18 25	2 75	3 00	95 10	134 60
THUNDER BAY:						
Oliver	138 00	132 50	41 00	44 00	456 45	811 95
Ware Township	5 00	6 00	.....	.....	74 25	85 25
West Algoma	209 00	216 00	.....	16 00	1,591 00	2,032 00
Whitefish Valley	18 00	42 00	2 00	2 50	163 15	227 65
VICTORIA:						
Fenelon	140 00	105 00	51 00	12 00	197 55	505 55
Mariposa	81 00	44 00	54 00	10 50	163 85	353 35
South Victoria	1,136 00	1,407 00	667 00	208 00	978 00	4,396 00
Verulam	218 00	172 75	40 00	44 50	294 31	769 56
WATERLOO:						
Elmira and Woolwich	242 50	36 00	14 00	5 00	358 25	655 75
South Waterloo	546 00	278 00	150 00	75 00	791 50	1,840 50
Wellesley and N. Easthope	260 00	118 50	73 00	19 00	440 40	910 90
Wilmot	262 00	151 00	83 50	51 50	560 60	1,108 60
WELLAND:						
Bertie	208 00	123 00	24 00	34 00	543 50	932 50
Fenwick	126 00	137 75	85 00	68 00	535 90	952 65
Thorold Town & Township	247 00	422 00	62 00	113 00	342 25	1,186 25
Welland	470 00	363 00	160 00	80 00	1,111 30	2,184 30
WELLINGTON:						
Arthur	259 00	128 00	22 00	14 00	314 30	737 30
Centre Wellington	161 00	194 50	60 50	25 50	610 65	1,052 15
Erin	218 50	172 50	83 50	46 50	453 75	974 75
Mount Forest	316 00	207 00	95 00	42 00	505 25	1,165 25
Palmerston	118 00	65 50	28 50	12 50	286 00	510 50
Peel and Drayton	187 00	172 00	34 00	34 00	261 45	688 45
Puslinch	146 50	75 00	40 00	12 50	238 40	512 40
Rockwood	160 00	180 00	49 00	31 00	444 60	864 60
West Wellington	175 50	67 00	19 25	15 00	436 07	712 82

ANALYSIS OF PRIZE MONEY PAID BY AGRICULTURAL SOCIETIES IN ONTARIO IN 1922—*Continued*

Societies	Horses	Cattle	Sheep	Swine	Miscellaneous	Total
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
WENTWORTH:						
Ancaster	249 00	228 00	96 00	16 50	352 75	942 25
Binbrook	130 50	72 50	92 75	30 00	257 20	582 95
Rockton	448 00	124 25	79 50	.....	403 50	1,055 25
Waterdown	.....	.....	.....	.....	.....	.....
West Flamboro	172 50	79 00	52 00	50 00	247 25	600 75
YORK:						
Markham and East York	582 00	372 00	366 00	113 00	743 30	2,176 30
Newmarket	551 00	372 00	224 00	101 00	567 50	1,815 50
Queensville	82 00	26 00	60 00	14 00	151 75	333 75
Richmond Hill	665 00	147 00	34 00	63 00	126 40	1,035 40
Scarboro	328 00	135 00	59 00	34 00	457 75	1,013 75
Schomberg	277 00	97 00	66 00	36 00	301 40	777 40
Sutton	205 00	130 00	30 00	18 00	245 00	628 00
Weston, York & Etobicoke	301 00	79 00	135 00	63 00	677 40	1,255 40
Woodbridge	1,078 00	474 00	281 00	104 00	1,037 75	2,974 75
INDIAN SOCIETIES:						
Garden River	60 75	41 50	.....	12 25	115 90	230 40
Sarnia Reserve	32 00	32 50	.....	5 00	251 90	321 40
Six Nations	176 00	84 00	14 00	21 00	458 45	753 45
United Indian	.....	.....	.....	.....	.....	.....
CITIES:						
Canadian Nat. (Toronto)	13,362 00	14,090 67	4,800 00	3,725 00	11,688 07	47,665 74
Central Canada (Ottawa)	6,162 00	5,579 00	2,374 00	1,463 00	7,997 29	23,575 29
Western Fair (London)	5,391 00	5,924 00	2,819 00	2,202 00	8,621 05	24,957 05
Total	96,278 68	78,173 73	30,741 86	18,560 93	152,133 84	375,889 04

REPORTS OF STOCK SOCIETIES

Societies	RECEIPTS					EXPENDITURE			
	Legislative grants	Members fees for 1922	Municipal grants	Sale of stock	Total actual receipts	Purchase of live stock	Keep of stock	Officers' salaries	Total actual expenditures
	$	$	$	$	$	$	$	$	$
Colchester North	230	247	150	.....	699	433	90	15	558
Cottam	260	446	150	.....	869	714	75	25	855
Drummond	60	47	50	16	176	40	94	10	146
Dummer and Douro	270	162	.....	144	825	349	613	17	1,435
Emily	155	202	200	10	617	655	294	18	1,046
Lakehurst	130	60	75	.....	308	375	80	5	463
Oldcastle	350	891	150	50	1,448	620	385	69	1,085
Osgoode	210	65	.....	.....	309	110	175	22	307
South Woodslee	740	1,093	150	.....	2,056	1,106	325	81	1,577
	2,405	3,213	925	220	7,307	4,402	2,131	262	7,472

COMPARATIVE STATEMENT OF GRANTS TO AGRICULTURAL SOCIETIES, 1922-23.

Societies	1922	1923
ALGOMA:		
Bruce Mines	$237 00	$258 00
Central Algoma	780 00	800 00
Iron Bridge	90 00	92 00
Johnston and Aberdeen		64 00
North Shore		73 00
St. Joseph Island	173 00	155 00
Thessalon	200 00	200 00
BRANT:		
Onondaga	$182 00	$167 00
Paris	400 00	379 00
South Brant	296 00	304 00
BRUCE:		
Arran and Tara	$377 00	$383 00
Carrick	291 00	286 00
Chesley	165 00	172 00
Eastnor	83 00	89 00
Hepworth	157 00	159 00
Huron Township	176 00	168 00
Kincardine	138 00	136 00
Lucknow	221 00	204 00
North Bruce & Saugeen	196 00	181 00
Paisley	226 00	233 00
Pinkerton	97 00	104 00
Teeswater	325 00	322 00
Tiverton	145 00	145 00
Underwood	129 00	125 00
Wiarton	207 00	198 00
CARLETON:		
Carleton County	$408 00	$483 00
Carp	313 00	282 00
Fitzroy	196 00	184 00
Metcalfe	380 00	405 00
DUFFERIN:		
Dufferin	$372 00	$350 00
Dufferin Central	311 00	295 00
East Luther	245 00	234 00
DUNDAS:		
Dundas	$79 00	$80 00
Mountain	216 00	204 00
Winchester	220 00	221 00
DURHAM:		
Cartwright	$149 00	$144 00
Clarke Township	317 00	307 00
Millbrook	254 00	244 00
Port Hope	.....	358 00
West Durham	429 00	408 00
ELGIN:		
Aldboro	$216 00	$222 00
Aylmer and East Elgin	175 00	184 00
Shedden	85 00	80 00
South Dorchester	159 00	162 00
Straffordville	90 00	83 00
West Elgin	362 00	368 00
Yarmouth and Belmont	300 00	300 00
ESSEX:		
Amherstburg, Anderdon and Malden	$204 00	$236 00
Colchester South	203 00	195 00
Comber	120 00	.....
Essex County	544 00	501 00
Mersea, Leamington and South Gosfield	511 00	548 00
FRONTENAC:		
Kennebec	$51 00	$55 00
Kingston Industrial	800 00	800 00
FRONTENAC—*Con.*		
Parham	$94 00	$94 00
Storrington	92 00	82 00
Wolfe Island	93 00	92 00
GLENGARRY:		
Glengarry	$207 00	$207 00
Kenyon	204 00	241 00
St. Lawrence Valley	359 00	339 00
GRENVILLE:		
Kemptville	$92 00	$97 00
Merrickville	129 00	119 00
Spencerville	131 00	129 00
GREY:		
Ayton	$106 00	$100 00
Colllingwood Township	224 00	222 00
Desboro	191 00	186 00
East Grey	121 00	124 00
Egremont	175 00	179 00
Hanover, Bentinck and Brant	199 00	215 00
Holland	247 00	252 00
Keppel and Sarawak	100 00	98 00
Kilsyth	241 00	248 00
Markdale	285 00	258 00
Meaford and St. Vincent	274 00	292 00
Normanby	77 00	74 00
Osprey	180 00	188 00
Owen Sound	456 00	461 00
Priceville	66 00	61 00
Proton	203 00	201 00
Rocklyn	163 00	159 00
South Grey	129 00	117 00
Sydenham	136 00	134 00
Walter's Falls	256 00	243 00
HALDIMAND:		
Caledonia	$531 00	$521 00
Canboro	49 00	45 00
Dunnville	130 00	135 00
Haldimand	172 00	164 00
Southern Branch	105 00	89 00
Walpole	162 00	142 00
HALIBURTON:		
Glamorgan	58 00	51 00
Haliburton	204 00	191 00
Minden	244 00	239 00
HALTON:		
Acton	$263 00	$261 00
Esquesing	264 00	264 00
Halton	446 00	428 00
Nelson and Burlington	292 00	287 00
Trafalgar	800 00	800 00
HASTINGS:		
Bancroft	$164 00	$176 00
Belleville	387 00	356 00
Frankford	236 00	200 00
Madoc	289 00	277 00
Marmora	243 00	249 00
Maynooth	74 00	78 00
Shannonville	110 00	105 00
Stirling	230 00	237 00
Tweed	.....	243 00
Wollaston	204 00	200 00
HURON:		
Bayfield	$111 00	$104 00
Blyth	139 00	147 00
Dungannon	94 00	83 00
East Huron	231 00	232 00
Exeter	254 00	241 00

COMPARATIVE STATEMENT OF GRANTS TO AGRICULTURAL SOCIETIES, 1922-23—*Continued*

HURON—*Con.*	1922	1923
Goderich Industrial	$225 00	$209 00
Howick	168 00	170 00
Seaforth	165 00	162 00
Turnberry	207 00	219 00
Zurich	139 00	130 00
KENORA:		
Dryden	$343 00	$352 00
Kenora	630 00	606 00
KENT:		
Camden	$134 00	$160 00
East Kent	218 00	222 00
Harwich	242 00	226 00
Howard	376 00	393 00
Orford	253 00	249 00
Raleigh and Tilbury	123 00	124 00
Romney and Wheatley	104 00	99 00
Wallaceburg	138 00	154 00
West Kent	439 00	485 00
LAMBTON:		
Bosanquet	$138 00	$130 00
Brooke and Alvinston	407 00	449 00
East Lambton	203 00	180 00
Florence	213 00	234 00
Forest	249 00	229 00
Moore	264 00	249 00
Petrolia and Enniskillen	348 00	334 00
Plympton and Wyoming	191 00	184 00
Sombra	114 00	106 00
West Lambton	414 00	406 00
LANARK:		
Dalhousie	$102 00	$95 00
Lanark Township	149 00	146 00
Lanark Village and Bathurst	171 00	151 00
Maberly	71 00	70 00
North Lanark	483 00	459 00
Pakenham	171 00	165 00
South Lanark	364 00	334 00
LEEDS:		
Brockville	.....	$481 00
Delta	$198 00	214 00
Frankville	193 00	181 00
Lansdowne	211 00	178 00
Lombardy	129 00	125 00
LENNOX AND ADDINGTON:		
Addington	$256 00	$274 00
Amherst Island	.....	140 00
Ernestown	202 00	194 00
Lennox	455 00	483 00
LINCOLN:		
Abingdon	$76 00	$98 00
Clinton	246 00	247 00
Monck	121 00	148 00
Niagara Town & Township	107 00	105 00
Peninsular Central	99 00	102 00
MANITOULIN:		
Billings	$190 00	$192 00
Gore Bay	399 00	373 00
Howland	232 00	233 00
Manitowaning	233 00	224 00
Providence Bay	240 00	230 00

MIDDLESEX:	1922	1923
Caradoc	$152 00	$155 00
Delaware	173 00	150 00
Dorchester	184 00	167 00
East Middlesex	100 00	100 00
London Township	164 00	165 00
McGillivray	64 00	65 00
Melbourne	267 00	258 00
Mosa and Ekfrid	241 00	253 00
North Middlesex	106 00	92 00
Parkhill	137 00	127 00
Strathroy	458 00	426 00
Thorndale	200 00	191 00
Westminster	151 00	144 00
MUSKOKA:		
Baysville	$172 00	$174 00
Gravenhurst and Muskoka	336 00	319 00
Medora and Wood	311 00	306 00
Morrison	115 00	126 00
North Muskoka	366 00	394 00
South Muskoka	787 00	713 00
Stephenson and Watt	418 00	412 00
Stisted	150 00	140 00
NIPISSING:		
Astorville	$93 00	$83 00
Bonfield	139 00	132 00
East Nipissing	276 00	280 00
North Bay	278 00	296 00
Sturgeon Falls	310 00	308 00
Verner	366 00	344 00
NORFOLK:		
Charlotteville	$119 00	$110 00
Courtland	103 00	97 00
Houghton	104 00	102 00
Norfolk County	748 00	744 00
North Walsingham	79 00	84 00
Townsend	92 00	94 00
Windham	122 00	140 00
NORTHUMBERLAND:		
Alnwick	$168 00	$199 00
Brighton	220 00	222 00
Cobourg Central	.....	.....
Colborne	338 00	317 00
Cramahe	161 00	140 00
Percy Township	575 00	555 00
Seymour	384 00	424 00
Wooler	184 00	171 00
ONTARIO:		
Beaverton	$242 00	$330 00
Brock	168 00	166 00
Port Perry, Reach and Scugog	214 00	205 00
Rama	47 00	52 00
Scott	122 00	121 00
South Ontario	579 00	570 00
Uxbridge	248 00	258 00
OXFORD:		
Drumbo	$324 00	$312 00
East Nissouri	123 00	110 00
Ingersoll, North & West Oxford	$171 00	$172 00
North Norwich	194 00	202 00
South Norwich	160 00	145 00
Tavistock	244 00	230 00
Tillsonburg & Dereham	239 00	218 00
West Zorra and Embro	183 00	162 00
Woodstock	659 00	643 00

COMPARATIVE STATEMENT OF GRANTS TO AGRICULTURAL SOCIETIES, 1922-23—*Continued*

	1922	1923
PARRY SOUND:		
Armour, Ryerson and Burk's Falls	$493 00	$483 00
Christie	313 00	311 00
Loring	201 00	199 00
Machar	217 00	218 00
Magnetawan	350 00	332 00
McKellar	453 00	421 00
McMurrich	292 00	272 00
Parry Sound	506 00	.....
Perry	337 00	329 00
Powassan	369 00	340 00
Rosseau	.....	370 00
Strong	368 00	356 00
Trout Creek	102 00	156 00
United Townships	281 00	266 00
PEEL:		
Albion and Bolton	$276 00	$272 00
Caledon	182 00	183 00
Cooksville	252 00	282 00
Peel	645 00	659 00
Toronto Gore	64 00	62 00
Toronto Township	301 00	261 00
PERTH:		
Elma	$123 00	$110 00
Fullarton, Logan and Hibbert	284 00	255 00
Kirkton	233 00	232 00
Listowel	132 00	137 00
Mornington	181 00	169 00
South Perth	218 00	196 00
Stratford	465 00	527 00
PETERBOROUGH:		
East Peterborough	$471 00	$470 00
Galway	45 00	43 00
Lakefield	170 00	178 00
Otonabee	165 00	153 00
Peterborough Industrial	800 00	800 00
PRESCOTT:		
Alfred	$152 00	$149 00
South Plantagenet	138 00	139 00
Vankleek Hill	304 00	314 00
PRINCE EDWARD:		
Ameliasburg	$180 00	$171 00
Prince Edward	800 00	800 00
Sophiasburg	119 00	122 00
RAINY RIVER:		
Atwood	.....	$460 00
Rainy River Valley	$712 00	763 00
RENFREW:		
Arnprior	$306 00	$343 00
Cobden	278 00	286 00
North Renfrew	404 00	425 00
Renfrew	800 00	800 00
RUSSELL:		
Casselman	$63 00	$57 00
Clarence	87 00	78 00
Russell	307 00	331 00
SIMCOE:		
Alliston	$123 00	$143 00
Barrie	527 00	501 00
Beeton	160 00	156 00
Bradford and West Gwillimbury	175 00	171 00
Coldwater	195 00	188 00
Cookstown	189 00	181 00
SIMCOE—*Con.*		
East Simcoe	$266 00	$255 00
Flos Township	249 00	245 00
Nottawasaga and Great Northern	366 00	376 00
Oro	174 00	167 00
Tiny and Tay	319 00	286 00
STORMONT:		
Cornwall	$467 00	$488 00
Finch	79 00	73 00
Roxborough	286 00	269 00
Stormont	187 00	211 00
SUDBURY:		
Chelmsford	$261 00	$248 00
Martland and Cosby	94 00	94 00
Massey	291 00	285 00
Warren	315 00	287 00
TEMISKAMING:		
Charlton	$242 00	$221 00
Cochrane	201 00	178 00
Englehart	394 00	389 00
Matheson	.....	9 00
New Liskeard	467 00	536 00
Porcupine	99 00	71 00
Porquis Junction	67 00	64 00
THUNDER BAY:		
Oliver	$429 00	$444 00
Ware Township	40 00	69 00
West Algoma	800 00	800 00
Whitefish Valley	195 00	173 00
VICTORIA:		
Eldon	.....	.....
Fenelon	$152 00	$143 00
Mariposa	99 00	97 00
South Victoria	800 00	800 00
Verulam	299 00	276 00
WATERLOO:		
Elmira and Woolwich	$170 00	$165 00
South Waterloo	529 00	503 00
Wellesley and North Easthope	262 00	246 00
Wilmot	436 00	380 00
WELLAND:		
Bertie	$140 00	$190 00
Fenwick	291 00	276 00
Thorold Town & Township	244 00	278 00
Welland	491 00	514 00
WELLINGTON:		
Arthur	$240 00	$219 00
Centre Wellington	328 00	303 00
Erin	274 00	268 00
Mount Forest	328 00	319 00
Palmerston	146 00	145 00
Peel and Drayton	178 00	172 00
Puslinch	151 00	144 00
Rockwood	283 00	263 00
West Wellington	184 00	189 00
WENTWORTH:		
Ancaster	228 00	224 00
Binbrook	185 00	176 00
Rockton	317 00	292 00
Waterdown	142 00	.....
West Flamboro	139 00	147 00

COMPARATIVE STATEMENT OF GRANTS TO AGRICULTURAL SOCIETIES, 1922-23—*Continued*

York:	1922	1923
Markham and East York	$616 00	$566 00
Newmarket	507 00	498 00
Queensville	105 00	94 00
Richmond Hill	265 00	263 00
Scarboro	309 00	286 00
Schomberg	255 00	229 00
Sutton	$202 00	$194 00
Weston, York and Etobicoke	346 00	349 00
Woodbridge	759 00	800 00
	$81,715 00	$82,691 00

SPECIAL GRANTS TO SOCIETIES IN THE DISTRICTS

Algoma:	1922	1923
Bruce Mines	$79 00	$89 00
Central Algoma	100 00	100 00
Iron Bridge	30 00	32 00
Johnston and Aberdeen	.....	21 00
North Shore	.....	25 00
St. Joseph Island	58 00	53 00
Thessalon	69 00	69 00
Frontenac:		
Kennebec	$34 00	$36 00
Parham	63 00	64 00
Haliburton:		
Glamorgan	$20 00	$17 00
Haliburton	68 00	65 00
Minden	82 00	82 00
Hastings:		
Bancroft	$100 00	$100 00
Maynooth	50 00	52 00
Wollaston	100 00	100 00
Kenora:		
Dryden	$100 00	$100 00
Kenora	100 00	100 00
Manitoulin:		
Billings	$64 00	$66 00
Gore Bay	100 00	100 00
Howland	78 00	80 00
Manitowaning	78 00	77 00
Providence Bay	80 00	79 00
Muskoka:		
Baysville	$58 00	$59 00
Gravenhurst & Muskoka	100 00	100 00
Medora and Wood	100 00	100 00
Morrison	39 00	43 00
North Muskoka	100 00	100 00
South Muskoka	100 00	100 00
Stephenson and Watt	100 00	100 00
Stisted	50 00	48 00
Nipissing:		
Astorville	$31 00	$28 00
Bonfield	47 00	45 00
East Nipissing	92 00	97 00
North Bay	93 00	100 00
Sturgeon Falls	100 00	100 00
Verner	100 00	100 00

Parry Sound:	1922	1923
Armour, Ryerson and Burk's Falls	$100 00	$100 00
Christie	100 00	100 00
Loring	67 00	68 00
Machar	73 00	75 00
Magnetawan	100 00	100 00
McKellar	100 00	100 00
McMurrich	98 00	94 00
Parry Sound	.....	.....
Perry	100 00	100 00
Powassan	100 00	100 00
Rosseau	.....	55 00
Strong	100 00	100 00
Trout Creek	56 00	54 00
United Townships	94 00	92 00
Peterborough:		
Galway	$30 00	$28 00
Rainy River:		
Atwood	.....	$100 00
Rainy River Valley	$100 00	100 00
Sudbury:		
Chelmsford	$88 00	$86 00
Martland and Cosby	32 00	32 00
Massey	97 00	98 00
Warren	100 00	99 00
Temiskaming:		
Charlton	$81 00	$86 00
Cochrane	67 00	61 00
Englehart	100 00	100 00
Matheson	.....	3 00
New Liskeard	100 00	100 00
Porcupine	.....	36 00
Porquis Junction	23 00	22 00
Thunder Bay:		
Oliver	$100 00	$100 00
Ware Township	29 00	24 00
West Algoma	100 00	100 00
Whitefish Valley	65 00	59 00
	$4,763 00	$4,999 00

SPECIAL GRANTS, 1922-1923

Indian Societies:		
Garden River	$50 00	$50 00
Sarnia Reserve	50 00	50 00
Six Nations	100 00	100 00
United Indian	100 00	100 00
	$300 00	$300 00

GRANTS TO THE CANADIAN NATIONAL, CENTRAL CANADA AND WESTERN FAIR, 1922-1923

	1922	1923
Canadian National	$2,479 00	$2,500 00
Central Canada	1,193 00	1,187 00
Western Fair	1,328 00	1,313 00
	$5,000 00	$5,000 00

GRANTS TO SPRING FAIRS, 1923

STALLION SHOWS, 1923, $247 00:

Millbrook	$50 00
Forest	47 00
Erin	50 00
Seaforth	50 00
Wilmot	50 00
	$247 00

STALLION AND BULL SHOWS, 1923, $111 00:

South Huron	$50 00
Arthur	50 00
North Renfrew	11 00
	$111 00

SEED FAIRS, 1923, $174 00:

Verulam	$24 00
Puslinch	19 00
Rockwood	21 00
Richmond Hill	25 00
South Huron	18 00
Centre Wellington	25 00
Wilmot	19 00
South Waterloo	23 00
	$174 00

GRANTS TO SOCIETIES OWNING PURE BRED STOCK, 1923

Colchester North	$240 00
Cottam	290 00
Drummond	60 00
Dummer and Douro	275 00
Emily	180 00
Lakehurst	150 00
Oldcastle	$320 00
Osgoode	205 00
South Woodslee	685 00
Verulam	60 00
	$2,465 00

LEGISLATIVE GRANTS TO SOCIETIES WHICH HELD STANDING FIELD CROP COMPETITIONS IN 1922

ALGOMA:	
Bruce Mines	$100 00
Central Algoma	50 00
North Shore	100 00
Thessalon	100 00
BRANT:	
Paris	$50 00
BRUCE:	
Arran and Tara	$50 00
Carrick	50 00
Chesley	50 00
Eastnor	50 00
Hepworth	100 00
Lucknow	100 00
Teeswater	100 00
Wiarton	100 00
CARLETON:	
Carp	$50 00
Fitzroy	50 00
Metcalfe	50 00
DUFFERIN:	
Dufferin	$100 00
Dufferin Central	100 00
East Luther	50 00
DUNDAS:	
Mountain	$100 00
DURHAM:	
Cartwright	$100 00
Clarke Township	50 00
Millbrook	50 00
Port Hope	50 00
West Durham	50 00
ELGIN:	
Aldborough	$50 00
West Elgin	50 00
ESSEX:	
Comber	$50 00
FRONTENAC:	
Kingston Industrial	$100 00
Wolfe Island	50 00
GLENGARRY:	
Kenyon	$50 00
St. Lawrence Valley	50 00
GREY:	
East Grey	$50 00
Holland	100 00
Keppel and Sarawak	100 00
Kilsyth	100 00
Meaford and St. Vincent	50 00
Osprey	50 00
Priceville	100 00
Proton	100 00
Rocklyn	100 00
South Grey	50 00
Walter's Falls	100 00
HALTON:	
Halton	$100 00
Nelson and Burlington	100 00
HASTINGS:	
Bancroft	$100 00
Madoc	100 00
Maynooth	50 00
Stirling	100 00
Wollaston	100 00

LEGISLATIVE GRANTS TO SOCIETIES WHICH HELD STANDING FIELD CROP COMPETITIONS IN 1922—*Continued*

HURON:	
Blyth	$ 50 00
East Huron	100 00
Howick	50 00
KENORA:	
Dryden	$100 00
KENT:	
East Kent	$100 00
Harwich	50 00
Howard	100 00
Orford	50 00
Raleigh and Tilbury	50 00
Wallaceburg	100 00
LAMBTON:	
Bosanquet	$50 00
Brooke and Alvinston	50 00
East Lambton	50 00
Florence	100 00
Plympton and Wyoming	50 00
LANARK:	
Lanark Village and Bathurst	$50 00
LEEDS:	
Brockville	$100 00
Lansdowne	50 00
Lombardy	50 00
LENNOX AND ADDINGTON:	
Lennox	$50 00
LINCOLN:	
Clinton	$50 00
Monck	100 00
Niagara Town and Township	100 00
MANITOULIN:	
Gore Bay	$100 00
MIDDLESEX:	
Caradoc	$100 00
Dorchester	100 00
East Middlesex	50 00
London Township	100 00
McGillivray	50 00
Melbourne	50 00
Mosa and Ekfrid	50 00
North Middlesex	100 00
United Indian	50 00
MUSKOKA:	
Gravenhurst and Muskoka	$100 00
Medora and Wood	100 00
North Muskoka	100 00
South Muskoka	100 00
Stephenson and Watt	100 00
NIPISSING:	
Bonfield	$50 00
Verner	50 00
NORFOLK:	
Courtland	$50 00
North Walsingham	50 00
NORTHUMBERLAND:	
Seymour	$100 00
ONTARIO:	
Beaverton	$100 00
Scott	50 00
OXFORD:	
East Nissouri	$100 00
Ingersoll, North and West Oxford	50 00
South Norwich	50 00
Woodstock	100 00
PARRY SOUND:	
Armour, Ryerson and Burk's Falls	$100 00
Christie	100 00
Loring	100 00
Machar	100 00
Magnetawan	100 00
McKellar	100 00
McMurrich	100 00
Perry	100 00
Powassan	100 00
Rosseau	50 00
Strong	50 00
United Townships	100 00
PEEL:	
Albion and Bolton	$100 00
Peel	50 00
Toronto Township	100 00
PERTH:	
Fullarton, Logan and Hibbert	$100 00
Kirkton	100 00
Stratford	100 00
PETERBOROUGH:	
Dummer and Douro	$100 00
East Peterborough	100 00
Lakefield	50 00
Otonabee	100 00
Peterborough Industrial	100 00
PRESCOTT:	
Alfred	$100 00
PRINCE EDWARD:	
Ameliasburg	$100 00
Prince Edward	100 00
Sophiasburg	50 00
RAINY RIVER:	
Atwood	$100 00
Rainy River Valley	50 00
RENFREW:	
Arnprior	$100 00
Renfrew	50 00
RUSSELL:	
Russell	$50 00
SIMCOE:	
Barrie	$100 00
Coldwater	100 00
Nottawasaga and Great Northern	50 00
SUDBURY:	
Warren	$50 00
TEMISKAMING:	
Charlton	$100 00
Cochrane	100 00
Englehart	100 00
New Liskeard	100 00
THUNDER BAY:	
Oliver	$100 00
West Algoma	50 00
Whitefish Valley	100 00
VICTORIA:	
Emily	$50 00
Verulam	50 00
WATERLOO:	
South Waterloo	$50 00
WELLAND:	
Bertie	$50 00
Fenwick	50 00

LEGISLATIVE GRANTS TO SOCIETIES WHICH HELD STANDING FIELD CROP COMPETITIONS IN 1922—*Continued*

WELLINGTON:	
Centre Wellington	$50 00
Erin	100 00
Mount Forest	100 00
Puslinch	50 00
Rockwood	50 00
WENTWORTH:	
Ancaster	$100 00
West Flamboro	50 00
YORK:	
Markham and East York	$50 00
Richmond Hill	100 00
Scarboro	100 00
Woodbridge	100 00
	$12,200 00

LEGISLATIVE GRANTS TO SOCIETIES WHICH HELD COMBINED STANDING FIELD AND THRESHED GRAIN CROP COMPETITIONS IN 1922

BRANT:	
Paris	$250 00
BRUCE:	
Eastnor	$250 00
North Bruce and Saugeen	250 00
Pinkerton	250 00
CARLETON:	
Carp	$250 00
Metcalfe	241 00
Fitzroy	250 00
DUFFERIN:	
East Luther	$250 00
DURHAM:	
Clarke Township	$250 00
Millbrook	250 00
Port Hope	250 00
West Durham	250 00
ELGIN:	
Aldborough	$250 00
West Elgin	250 00
ESSEX:	
Essex Co.	$250 00
GRENVILLE:	
Kemptville	$250 00
GREY:	
Desboro	$250 00
Egremont	250 00
HURON:	
Goderich Industrial	$250 00
Turnberry	250 00
KENT:	
Harwich	$250 00
Orford	250 00
LAMBTON:	
Brooke and Alvinston	$250 00
LENNOX:	
Addington	$250 00
MIDDLESEX:	
Melbourne	$250 00
Mosa and Ekfrid	250 00
NORFOLK:	
Courtland	$250 00
ONTARIO:	
Scott	$250 00
OXFORD:	
South Oxford	$196 00
PARRY SOUND:	
Strong	$241 00
RAINY RIVER:	
Rainy River Valley	$250 00
RENFREW:	
Renfrew	$250 00
RUSSELL:	
Russell	$250 00
VICTORIA:	
Fenelon	$250 00
Verulam	250 00
WATERLOO:	
South Waterloo	$250 00
WELLAND:	
Bertie	$250 00
WELLINGTON:	
Arthur	$164 00
Centre Wellington	250 00
Puslinch	250 00
Rockwood	250 00
WENTWORTH:	
Glanford	$250 00
	$10,342 00

GRANTS TO SOCIETIES WHICH SUFFERED LOSSES IN GATE RECEIPTS THROUGH WET WEATHER, 1922

GRENVILLE:	
Merrickville	$123 00
HALDIMAND:	
Southern Branch	$219 00
HALTON:	
Esquesing	$314 00
Nelson and Burlington	28 00
HASTINGS:	
Belleville	$500 00
Stirling	353 00
HURON:	
Howick	$240 00
KENT:	
Howard	$446 00
LINCOLN:	
Abingdon	$177 00
Peninsular Central	437 00
MIDDLESEX:	
Delaware	$235 00
NORTHUMBERLAND:	
Brighton	$103 00
PEEL:	
Albion and Bolton	$366 00
PETERBOROUGH:	
Lakefield	$81 00
Peterboro Industrial	100 00
PRESCOTT:	
Alfred	$68 00

GRANTS TO SOCIETIES WHICH SUFFERED LOSSES IN GATE RECEIPTS THROUGH WET WEATHER, 1922—*Continued*

PRINCE EDWARD:	
Ameliasburg	$158 00
SIMCOE:	
Bradford and West Gwillimbury	$275 00
East Simcoe	253 00
Nottawasaga and Great Northern	467 00
VICTORIA:	
Mariposa	$90 00
WATERLOO:	
Wilmot	$89 00
WELLAND:	
Thorold Town and Township	$410 00
YORK:	
Markham and East York	$500 00
	$6,032 00

BUREAU OF MUNICIPAL AFFAIRS

Reports of

Municipal Water Works and Gas Systems

for 1923

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty

1924

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TORONTO
CANADA

To His Honour Henry Cockshutt, Esquire,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I have the honour to present to you the report of the Bureau of Municipal Affairs for the year 1923 with reference to the Municipal Systems of Water Works and Gas Works reports for the previous year.

Lincoln Goldie,
Provincial Secretary.

Parliament Buildings,
Toronto, January, 1924.

PARLIAMENT BUILDINGS,
Toronto, January, 1924.

To The Honourable LINCOLN GOLDIE, M.P.P.,
Provincial Secretary of the Province of Ontario.

Sir,—I have the honour to present to you the report of the Bureau of Municipal Affairs for the year 1923 with reference to the Municipal Systems of Water Works and Gas Works reports for the previous year.

I have the honour to be, Sir,

Your obedient servant,

J. A. ELLIS,
Director.

MUNICIPAL WATER WORKS

Statements compiled from Municipal Returns for the Year Ending 31st December, 1922

Municipality	Year of Installation	Population	Gallons of Water Consumed During Year	Earning	Operating Expenses	Assets	Liabilities	Net Profit	Net Loss	Average daily consumption per head in gallons
Acton	1920	1,740	7,834,000	$2,552 49	$1,862 67	$128,000 00	$126,024 87	.....	$7,539 44	12 1/3
Alexandria	1896	2,200	50,000,000	8,830 92	8,452 43	19,742 80	20,305 65	$378 19	.....	58
Alliston	1892	1,300	35,767,500	10,345 31	9,421 83	36,377 85	12,482 40	923 48	.....	75
Amherstburg	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arnprior	1901	4,173	249,537,471	14,407 67	8,756 87	104,588 30	20,152 17	1,381 80	.....	163
Aylmer	....	2,242	.....	8,987 24	8,456 86	82,783 30	.....	.....	.....	.....
Aurora	1888	2,400	40,150,000	5,106 58	2,699 54	57,700 00	13,361 07	2,407 04	.....	45
Barrie	1890	7,000	90,920,500	18,893 59	13,454 73	164,998 18	51,724 19	5,438 86	.....	35.58
Beamsville	1895	1,200	.....	3,222 54	4,817 00	37,010 69	4,085 80	.....	.....	.....
Beeton	1893	586	.....	2,246 21	630 87	37,003 03	8,320 60	1,452 27	.....	.....
Belleville	1889	14,000	726,970,000	45,930 27	31,397 49	348,272 92	348,272 92	14,532 78	.....	142
Bracebridge	1895	2,463	36,000,000	6,067 85	2,524 31	69,494 61	29,542 88	1,857 76	.....	40
Brampton	1880	4,770	99,902,000	24,071 78	16,944 45	194,314 39	65,358 71	3,287 33	.....	60¼
Brantford	1888	32,470	843,655,025	120,901 83	47,171 43	1,312,331 43	917,299 08	1,538 45	.....	71 1/5
	1889									
Bridgeburg	1903	2,400	68,620,000	7,528 69	6,824 07	175,523 47	.....	.....	11,033 20	78½
Brockville	1882	9,500	827,922,956	54,324 57	33,887 42	397,475 17	181,476 69	1,425 32	.....	238
Burlington	1909	2,600	127,400,500	17,812 55	20,619 15	115,980 99	113,458 42	.....	.....	.....
Campbellford	1889	2,881	.....	3,335 63	2,616 08	48,165 57	.....	719 55	.....	.....
Carleton Place	1915	4,125	.....	10,771 51	6,705 34	237,117 55	255,198 91	.....	9,984 86	.....
Chapleau	1909	2,300	106,245,000	12,561 27	7,926 88	68,294 60	47,825 56	1,393 31	.....	136
	1910									
Chatham	1890	15,084	576,000,000	59,935 25	31,675 84	347,523 50	122,129 31	1,110 46	.....	100
Clinton	1909	1,922	22,866,338	7,349 13	3,484 15	98,857 41	79,000 00	.....	.....	52
Cobalt	1910	4,160	348,468,100	22,668 61	18,914 37	15,077 41	806 21	3,754 24	.....	230
Cochrane	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coldwater	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Collingwood	1889	7,300	265,322,000	14,360 17	15,158 14	96,953 97	77,034 68	.....	797 97	99
Cornwall	1887	8,000	700,000,000	26,167 73	14,479 74	197,511 30	81,640 32	5,467 67	.....	.....
Creemore	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deseronto	1906	1,844	....	5,925 09	6,563 28	73,350 78	19,074 49	.....	.....	.....
Dresden	1911	1,468	....	1,002 88	1,553 17	41,748 15	37,473 99	.....	.....	.....
	1912									
Dundas	1884	5,070	40,714,174	19,631 16	9,721 59	216,074 47	154,511 09	.....	2,600 69	22
Dunnville	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elmira	1908	2,400	25,000,000	5,769 29	1,550 54	48,050 30	32,283 79	2,414 59	.....	30

Englehart										
Essex	1891	1,592	51,712,000	6,584 68	5,927 45	40,000 00	25,903 80			95 1/3
Exeter	1910	1,486	20,000,000	4,245 90	3,867 19	35,953 91	14,126 04		628 50	
Fort Erie	1910	1,500	32,750,000	4,942 83	3,293 90	69,270 62	27,956 72			40
Fort Frances	1907	3,300	182,500,000	14,440 54	5,846 64	123,289 56	99,810 61	668 83		143
	1908									
Fort William	1898	20,465	900,000,000	117,105 57	37,875 64	1,887,249 19	1,887,249 19	4,530 76		130
Galt	1890	13,222	520,975,684	58,914 23	51,503 61	631,590 72	612,251 01	10,935 10		108
	1891									
Gananoque	1903	3,489	125,291,300	13,618 45	10,005 77	302,642 81	186,093 76		2,317 79	98
	1905									
Georgetown										
Goderich	1888	4,108	169,159,450	16,773 75	14,272 38	86,127 54	29,718 90	2,501 37		
Grimsby	1905	1,899	110,000,000	60,092 61	60,986 94	125,845 00	78,188 00		8,267 00	158
Gravenhurst	1906	1,850	47,000,000	4,723 59	5,066 83	49,849 81	38,882 13		343 24	6
Guelph	1879	18,420	848,821,000	81,272 39	29,888 24	596,810 90	194,962 93	7,621 51		126
Haileybury										
Hamilton	1859	118,243	6,077,439,110	534,890 35	151,297 51	6,071,945 28	3,305,862 35	99,339 01		140.86
Hanover	1901	2,842		5,210 62	5,737 11	60,866 28	35,172 67		2,300 97	
Hawkesbury	1902	5,089	236,984,400	15,968 57	13,320 56	390,561 74	248,920 83	2,648 01		127
Hespeler	1916	2,907		9,186 28	3,313 82	99,832 28	85,046 61	2,132 10		
Huntsville										
Ingersoll	1890	5,100	118,296,056	24,451 10	20,884 83	199,569 92	167,619 45			63
Iroquois										
Kenora	1898	6,234	408,000,000	35,929 53	18,859 35	298,311 95	294,278 97	1,056 78		140
Kincardine	1875	2,178	64,800,000	9,614 52	8,196 89	85,042 26	56,338 57		4,882 56	82
Kingston	....	23,000	1,393,335,000	58,036 67	61,681 73	486,002 35	486,002 35			166
Kingsville	1894	2,010	36,500,000	9,787 28	9,370 68	96,000 00	64,100 00		2,583 40	50
Kitchener	1889	23,571	614,317,250	92,390 86	52,161 80	736,017 77	440,018 93	19,444 06		71½
Leamington	1899	3,864	198,553,560	22,007 15	13,672 50	120,000 00	80,406 08		855 35	140.8
Leaside	....	300	59,674,368	13,367 98	13,680 55					
Lindsay	1900	7,960	417,000,000	31,795 96	23,343 15	287,740 42	180,788 05	8,452 81		140
Listowel	1903	2,571	17,301,000	11,030 33	9,769 98	70,248 86	70,248 86			
London	1879	60,685	2,284,187,000	240,684 90	117,953 37	1,970,248 65	1,970,248 65	24,191 60		103
Lucknow	1890	917		100 00	1,863 35				Fire protection	
Markdale	1909	925		2,821 37	939 02	31,301 35	24,164 98			
Markham	1890	970	7,000,000	4,300 46	2,007 05	35,813 15	26,777 08	339 19		20
Massey	1908	814		1,635 00	188 75	25,500 00	13,862 00	540 00		
Matheson	1919	306		4,659 03	3,944 82	42,132 85	13,315 48		1,379 54	
Merritton	1888	2,500		8,395 24	5,908 93	99,282 71		165 85		
	1889									
Midland	1901	7,175	170,954,000	28,459 45	26,116 91	195,259 06	137,755 46	2,342 54		
	1902									
Milton	1887	2,000		2,952 19	500 00	45,100 00	8,545 21	2,452 19		
Mimico	1914	5,000	110,235,646	15,695 19	15,272 05	188,088 80	188,088 80	423 14		60.4
Mitchell	1873	1,686		5,359 43	3,637 21	29,821 82	17,209 32	1,261 53		
Morrisburg	1887	1,500		4,651 35	1,514 59	25,000 00				

MUNICIPAL WATER WORKS—Continued

Municipality	Year of Installation	Population	Gallons of Water Consumed During Year	Earnings	Operating Expenses	Assets	Liabilities	Net Profit	Net Loss	Average daily consumption per head in gallons
Mount Forest	1901	1,760	21,900,000	$6,902 09	$7,407 38	$38,040 19	$39,010 12	.....	$2,516 91	34
Napanee	1921	3,100	145,000,000	14,305 74	10,599 42	124,510 33	116,218 00	$3,706 32	.....	130
	1922									
New Liskeard	1907	2,100	64,000,000	8,500 00	4,718 18	121,800 00	62,097 23	451 35	.....	90
Newmarket	1887	3,600	40,000,000	7,816 00	2,204 16	98,000 00	30,132 36	.....	.....	.....
Niagara	1891	1,640	.....	8,107 55	5,661 70	68,009 18	30,014 66	.....	2,504 57	.....
Niagara Falls	1884	15,412	1,258,246,000	59,981 86	25,837 18	390,307 97	78,962 04	15,444 68	.....	223
North Bay	1891	11,768	.....	46,778 52	22,081 28	220,825 22	131,157 23	12,796 65	.....	.....
Norwich	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oakville	1908	3,500	.....	17,412 56	8,872 89	173,185 62	142,411 71	.....	.....	.....
	1909									
Orangeville	1895	2,504	.....	5,364 60	4,669 27	62,275 94	7,594 33	695 33	.....	.....
Orillia	1913	7,900	255,231,684	32,045 04	14,777 30	287,086 46	174,381 15	7,009 43	.....	88
Oshawa	1904	12,850	289,389,700	79,654 13	33,028 87	706,010 72	536,666 12	5,951 26	.....	62.9
	1905									
Ottawa, Eastview and Rockcliffe	1874	121,205	7,840,402,070	484,631 83	454,679 89	4,980,899 33	3,910,389 32	29,951 94	.....	177.2
Owen Sound	1890	12,200	350,000,000	25,414 72	8,709 81	404,901 13	189,966 42	19,494 11	.....	79
Palmerston	1908	1,900	547,500,000	10,701 61	9,894 83	52,483 31	29,882 88	.....	1,554 47	60
Paris	1882	4,400	131,411,000	11,936 00	8,536 00	113,000 00	22,500 00	961 00	.....	81.49
Parkhill	1913	1,250	.....	3,664 09	1,283 26	29,200 00	27,976 22	274 83	.....	.....
Parry Sound	1892	3,320	111,200,000	13,138 99	8,704 83	102,082 79	.....	308 98	.....	88
Penetanguishene	1889	3,920	127,750,000	12,364 45	10,948 58	102,158 46	44,818 94	1,415 87	.....	89
	1890									
Peterborough	1882	21,605	1,075,065,000	117,506 14	110,000 26	1,128,023 12	1,110,616 19	7,505 88	.....	137
Pembroke	1893	8,370	284,264,000	27,215 36	11,617 58	402,774 40	231,306 96	.....	3,222 70	93.06
Petrolia	1896	3,055	297,867,000	26,012 80	26,151 77	197,943 00	67,598 66	.....	.....	.....
Picton	1889	3,500	83,700,000	9,744 11	5,802 51	36,921 38	18,691 95	2,861 60	.....	7
Port Arthur	1903	15,680	915,302,000	149,869 02	40,532 36	1,745,578 15	1,745,578 15	22,408 32	.....	159.9
	1904									
Port Colborne	1898	3,300	87,600,000	4,868 49	3,423 40	99,277 55	57,041 14	.....	.....	73
Port Dalhousie	1920	1,424	15,744,456	5,074 25	2,643 11	154,170 07	152,339 63	1,181 14	.....	23
	1921									
Port Elgin	1908	1,300	.....	2,280 00	2,637 50	40,000 00	26,617 18	.....	.....	.....
Port Hope	1896	5,000	55,980,000	11,992 00	10,186 37	154,427 84	68,775 29	1,483 79	.....	30
Port Perry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Stanley	1912	.....	.....	9,636 98	5,747 85	55,955 70	55,955 70	2,689 13	.....	.....

Prescott	1900	2,723	109,500,000	12,801 15	11,375 82	74,510 59	62,996 97	1,425 33	.....		110
Preston	1906	5,576	91,250,000	27,808 33	24,917 64	199,747 06	151,859 18	2,890 69	.....		44¾
Rainy River	1910	1,485	32,850,000	5,106 30	3,606 13	49,251 46	44,741 17	.....	47 73		6
Renfrew	1897 and 1912	5,200	358,000,000	20,502 18	23,331 14	204,870 32	101,834 96	.....	2,828 96		188
Ridgetown	1912 1915	2,150	20,075,000	7,142 97	3,061 74	62,281 23	20,883 84	.....	.....		25½
Sandwich	1892	5,010	156,316,000	17,863 53	14,984 67	207,138 34	28,046 24	2,878 86	.....		85½
Sarnia	1874	16,376	1,442,478,479	88,614 63	54,131 14	659,128 57	470,190 83	.....	15,985 05		241
Sault Ste. Marie and Steelton	1914	22,000	1,052,542,000	91,031 00	36,718 00	697,796 00	.....	.....	.....		.....
Seaforth	1881	1,950	.....	2,134 00	2,382 32	62,063 25	56,000 00	.....	248 32		.....
Shelburne	1889	1,101	.....	2,650 50	1,396 60	20,000 00	9,542 43	.....	.....		.....
Simcoe	1907	4,000	57,800	14,530 53	4,862 88	118,447 76	52,234 72	1,705 40	.....		37
Smith's Falls	1900	6,592	547,370,000	38,412 16	13,545 82	261,938 65	170,649 38	1,380 62	.....		227
Southampton	1902	1,550	438,800,000	4,569 61	4,399 39	47,489 19	24,318 28	.....	.....		160
Stayner	1898	1,004	.....	1,881 78	857 03	25,000 00	7,275 67	99 67	.....		.....
St. Catharines	1879	24,000	1,497,579,670	93,022 88	22,781 16	1,323,206 02	665,673 19	39,920 66	.....		171
St. Mary's	1899	4,012	81,675,012	13,504 95	6,841 53	96,702 34	48,405 66	862 71	.....		55.9
St. Thomas	1890	20,000	621,973,000	67,184 22	30,414 82	715,835 96	498,891 75	9,730 37	.....		85.20
Stouffville	1897	1,084	.....	3,596 28	2,229 17	37,408 20	12,149 00	1,367 11	.....		.....
Stratford	1883	19,000	322,167,000	59,808 33	53,334 23	613,453 75	588,603 97	.....	.....		46
Strathroy	1903	2,642	73,000,000	8,357 77	12,874 09	.....	79,306 43	.....	4,516 32		.....
Sturgeon Falls	1903	4,200	220,000,000	8,620 36	9,809 29	135,100 00	.....	.....	.....		.....
Sudbury	1895	9,076	371,473,000	39,306 74	21,994 55	341,574 55	209,425 60	.....	3,704 51		113
Tavistock	1911	1,000	912,500	3,144 67	1,936 51	35,626 89	21,739 13	139 38	.....		25
Teeswater	1912 1889	833	.....	.....	1,405 00	11,300 00	.....	Fire	protection		only
Thamesville	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....
Thessalon	1896	1,747	.....	8,650 13	5,492 48	43,730 00	39,501 00	270 65	.....		.....
Tilbury	1888	1,981	12,250,000	1,552 50	2,274 20	58,800 00	33,778 37	.....	721 70		.....
Timmins	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....
Toronto	1874	529,083	2499583000000	3,091,319 32	1,529,181 44	22,447,182 99	22,447,182 99	573,421 98	.....		129.4
Tottenham	1914	513	7,000,000	820 10	770 70	7,374 00	.....	.....	.....		40
Trenton	1891	6,000	109,500,000	8,900 86	6,081 60	27,917 98	21,885 74	1,213 53	.....		50
Walkerton	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....
Wallaceburg	1914	4,119	76,310,550	17,833 15	5,736 78	185,165 85	140,401 84	.....	.....		50
Waterloo	1899	6,095	154,968,750	28,763 44	24,849 01	195,688 01	112,612 32	3,914 43	.....		69
Welland	1882	8,638	912,500,000	41,803 64	41,723 70	295,131 90	168,924 27	79 94	.....		169
Weston	1910	3,500	95,000,000	18,963 87	13,766 87	142,104 80	142,023 12	5,197 00	.....		.....
Whitby	1904	4,174	127,750,000	15,163 62	10,119 65	119,627 29	78,676 98	199 71	.....		84
Wiarton	1888	1,809	105,120,000	7,368 70	7,356 47	64,828 52	20,178 12	12 23	.....		160
Wingham	1879	2,470	36,500,000	9,891 91	6,945 37	95,746 20	84,572 20	574 73	.....		40
Woodstock	1880	10,196	420,954,450	34,994 65	17,957 37	390,392 13	174,486 99	10,044 34	.....		113
York Tp	1918	51,974	307,811,000	193,713 65	181,724 74	2,073,441 97	2,085,430 88	11,988 91	.....		16

MUNICIPAL

Statements Compiled from Municipal Returns

Municipality	Population	Domestic consumers	Commercial consumers	Number of feet consumed during year	Number of feet purchased during year	Price paid per 1,000 feet	Price received per 1,000 feet
Belleville	12,314	1,340	10	26,218,720	.....	.....	.....
Brockville	9,384	1,996	11	32,416,900	.....	.....	$2 00
Guelph	18,420	Total consumers	3,770	98,000,000	.....	.....	$1 30
Kingston	23,000	Total consumers	3,700	.....	.....	.....	.....
Kitchener	23,571	Total consumers	4,158	88,880,400	.....	.....	$1 60
Owen Sound	12,260	1,299	141	21,564,400	.....	.....	$1 62
St. Thomas	18,000	3,768	.....	87,055,100	.....	.....	$1 85
Waterloo	6,096	941	4	13,450,709	.....	.....	$2 and $2 25

NATURAL

Leamington	3,868	1,070	5	18,091,900	18,091,900	24c.	40c.

GAS WORKS

for the Year ending 31st December, 1923

Earnings	Operating Expenses	Assets	Liabilities	Net profit	Net loss
$49,400 11	$58,293 67	$184,687 26	$184,687 26	.....	$8,893 56
63,709 54	57,580 82	175,254 35	62,352 10	$2,628 72	.....
143,331 23	104,913 25	419,980 13	268,249 73	14,678 53	.....
130,166 61	116,095 80	485,573 02	485,573 02	.....	.....
162,566 78	110,565 75	492,573 94	476,507 53	6,781 00	.....
51,290 39	42,582 81	204,117 99	106,058 93	5,753 99	.....
157,291 13	124,717 20	395,656 02	245,294 72	21,920 33	.....
29,957 26	27,931 43	87,909 79	54,009 93	2,025 83	.....

GAS

$73,814 10	$57,831 33	$47,500 00	$4,379 71	$17,982 77	.....

Twenty-second Annual Report

OF THE

Temiskaming and Northern Ontario Railway Commission

ONTARIO GOVERNMENT RAILWAY

Hon. G. Howard Ferguson, Premier

For the Year Ending October 31st

1923

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:

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1924

PRODUCED BY
The
United Press
LIMITED
TORONTO
CANADA

To His Honour Henry Cockshutt, Esq.,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

The undersigned has the honour to present to Your Honour the Twenty-second Annual Report of the Temiskaming and Northern Ontario Railway Commission, for the fiscal year ended October 31st, 1923.

Respectfully submitted,

G. Howard Ferguson,
Prime Minister and President of the Council.

The Honourable G. Howard Ferguson,
Prime Minister and President of the Council,
Parliament Buildings, Toronto, Ontario.

Sir,—I have the honour, by direction, to submit, herewith, the Twenty-second Annual Report of the Temiskaming and Northern Ontario Railway Commission, for the fiscal year ended October 31st, 1923.

I have the honour to be, Sir,

Your obedient servant,

W. H. Maund,
Secretary-Treasurer.

North Bay, December 21st, 1923.

TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION

GEO. W. LEE - - - - - - - - - Chairman, North Bay.

COL. J. I. McLAREN - - - - - - - - Commissioner, Hamilton.

LT.-COL. L. T. MARTIN - - - - - - Commissioner. Ottawa.

W. H. MAUND - - - - - - - - - Secretary-Treasurer North Bay.

TEMISKAMING AND NORTHERN ONTARIO RAILWAY

REVIEW OF FISCAL YEAR, 1923, ET AL.

The state of trade, in general, throughout Canada materially improved during the last year. Dominion statistics support this conclusion, which is evidenced in increased bank clearings, foreign commerce and general stability of commodity prices, resulting in encouraged confidence and increased general prosperity.

This condition is properly reflected in the increased gross and net results of railroad operation, and the Temiskaming and Northern Ontario Railway participated in the general advance of the country's prosperity as a whole.

Northern Ontario is rapidly coming into its own, and year by year its wonderful possibilities are becoming more widely known and appreciated.

The main line extension and branch line construction of the Temiskaming and Northern Ontario Railway continue in keeping with the expanion of business and the opening of new fields of endeavour, and the time is rapidly approaching when the north country will achieve a perfection of development which will bring recognition from all parts of the world. This development will probably be more rapid than that of older Ontario by reason of the Government's increased interest in the opening of the country for settlement, and its consideration of the increasing requirements of the agricultural and mining interests; and the experience and business machinery of the southern part of the province is solidly behind this forward movement. While it is impossible to state the exact purchasing power of this expanding Northern Ontario, fairly accurate estimates show that the importing requirements of the mining industry represent approximately $40,000,000 per annum, and the pulp, paper and lumbering interests approximately $25,000,000 per annum.

The extent of the natural resources of the north is enormous, and becomes more apparent ever year. The mine, the forest, the field, and river all contribute to make the country one of the greatest in potential wealth on the continent. Since the inception of the railway in 1903, the mining industries of Porcupine, Cobalt, Kirkland Lake *et al*, record the wonderful production of silver values in excess of $209,000,000, and gold values approximating $110,000,000 with dividends paid and declared totalling $133,006,062 to close of present year. Ultimately the production of minerals per capita in Canada should exceed any other country in the world, having risen in the past thirty-five years from $2.23 to $26.40 per head. Different to many other basic industries, mining is not affected by climatic conditions and can be carried on irrespective of them. The capital invested in Canadian mining industry is derived as follows: Canada, 54 per cent.; Great Britain, 15 per cent., and United States, 31 per cent.

The construction of the first seventy miles of the James Bay extension has been fully completed up to mileage 44.4, and to this extent the line was opened for traffic on November 1st, 1923. The remaining 25.6 miles are graded and practically ready for steel laying so soon as the bridge erection across the Abitibi River is completed. Due to changed conditions this unfinished part of the work has been taken over from contractors and will be completed by Commission during the coming year. Surveys for the further extension of the road have been

completed, and the endeavour has been to obtain the greatest results from the vast potential resources available for industrial and power development on the Abitibi, Metagami and Moose Rivers, *et al.*

In September last a trip from end of steel to James Bay was undertaken by His Honour Lieut.-Governor Cockshutt, accompanied by Honourable G. Howard Ferguson, Premier of Ontario, the Rev. Canon Cody, Geo. W. Lee, chairman T. & N. O. Railway Commission, and other Government and railway officials, to obtain first-hand information regarding the possibilities of development along the route of the railway extension beyond mileage 70 and the feasibility of a Hudson Bay-Ontario ocean port at Moose Factory. The northern journey was made by canoe and the return trip by hydroplane, to conserve time and to more fully observe the topography of the intervening country. In this manner the opportunities afforded of disclosing the nature of the Ontario hinterland were excellent. The inland journey was somewhat strenuous, due to long portages and the many swollen rapids encountered, but the memorable journey was completely successful and enjoyable and very valuable data was secured.

The personnel of the party gives great significance to the undertaking, as never before has a Lieut.-Governor and Prime Minister set out to personally investigate the possibilities of tidal waters within their own province, and the north country has every reason to conclude that the results will be far-reaching in the near future.

The operation of the Temiskaming and Northern Ontario Railway during the past fiscal year has been eminently satisfactory.

The total revenue tonnage carried in 1923 was 1,550,651 tons, of which approximately 50 per cent. was represented by forest products, as compared with 1,185,453 tons carried in 1922, an increase of 365,198 tons, equal to 30.8 per cent.

Passenger service revenue also increased by $176,413.66, equal to 16 per cent.

Statistical statements appended show that Commission's gross revenue from all sources in 1923 was $5,261,592.16, as compared with $4,361,651.78 for the preceding year, an increase of $899,940.38, equal to 20.6 per cent., while total gross expenditures increased by $775,596.68 due to the greater volume of business transacted. The net results of operation in 1923 show an earning of $836,848.93 as compared with $712,505.23 in 1922, an increase of $124,343.70, equal to 17.2 per cent. for the period.

Insurance against fire has been carried to the extent of $2,541,595.00 on Commission's property, as set forth in detailed statement contained in Annual Report.

In conclusion, the railway is in excellent financial and physical condition.

Geo. W. Lee,
Chairman.

COMPARATIVE STATEMENT OF EARNINGS AND EXPENDITURES AND RESULT OF OPERATION, FISCAL YEARS 1922-1923

	1923	1922
REVENUE		
Revenue from transportation	$4,972,738 19	$4,125,272 56
Revenue other than transportation	226,375 83	193,317 99
	$5,199,114 02	$4,318,590 55
OTHER INCOME		
Ore royalties....Dr.	$2,280 05 Dr.	$647 38
Rent—joint facilities	22,821 82	23,515 21
Lease of road	10,547 78	10,578 03
All other income	31,388 59	9,615 37
	$62,478 14	$43,061 23
Gross Income	$5,261,592 16	$4,361,651 78
EXPENDITURES		
Maintenance of way and structures	$865,320 68	$718,761 15
Maintenance of equipment	866,557 45	648,892 08
Traffic	23,267 14	32,322 86
Transportation	2,173,858 68	1,782,728 79
Miscellaneous	71,165 38	59,811 64
General	178,876 33	198,600 12
Transportation for investment....Cr.	10,406 37	12,069 39
	$4,168,639 29	$3,429,047 25
OTHER EXPENDITURES		
Equipment rental	$250,087 44	$218,195 50
Rent of joint facilities	6,016 50	1,903 80
	$256,103 94	$220,099 30
Total Expenditure	$4,424,743 23	$3,649,146 55
NET RESULTS	$836,848 93	$712,505 23

Total operating revenue 1923 exceeds 1922 by $880,523.47 equal to 20.4 per cent.
Total operating expenses 1923 exceeds 1922 by 739,592.04 equal to 21.6 per cent.

1923 gross income per mile of operated road	$16,017 02
1923 gross expenditures per mile of operated road	13,469 54
1922 gross income per mile of operated road	13,277 48
1922 gross expenditures per mile of operated road	11,108 51
1923 net result per mile of operated road	2,547 48
1922 net result per mile of operated road	2,168 97

Fire Insurance

During the year, fire insurance has been maintained on Commission's property to the extent of $2,541,595.00 valuation—with sundry endorsements and amendments, due to changed conditions—under the following headings:

BUILDINGS AND CONTENTS

Division No. 1—Buildings	$304,730 00	
Division No. 1—Contents	158,900 00	
Division No. 2—Buildings	155,700 00	
Division No. 2—Contents	38,400 00	
Kerr Lake Branch—Buildings	600 00	
Kerr Lake Branch—Contents	100 00	
Charlton Branch—Buildings	7,100 00	
Charlton Branch—Contents	1,300 00	
Porcupine Branch—Buildings	81,700 00	
Porcupine Branch—Contents	23,200 00	
Elk Lake Branch—Buildings	19,100 00	
Elk Lake Branch—Contents	4,700 00	
Nipissing Central Railway—Buildings	12,325 00	
Nipissing Central Railway—Contents	23,140 00	
		$830,995 00

Bridges and Trestles		
Division No. 1	$4,650 00	
Division No. 2	9,000 00	
Kerr Lake Branch	5,000 00	
Charlton Branch	10,150 00	
Porcupine Branch	12,050 00	
Elk Lake Branch	12,400 00	
		$53,250 00
Freight		
Merchandise in transit	$250,000 00	
		$250,000 00
Rolling Stock		
Properties of other railways	$200,000 00	
Locomotives and tenders	259,000 00	
Passenger equipment	316,700 00	
Freight equipment	406,200 00	
Work equipment	160,650 00	
Electric railway equipment	64,800 00	
		1,407,350 00
Total		$2,541,595 00

AUDITORS' REPORT

We have pleasure in directing attention to a letter from Edwards, Morgan & Co., Chartered Accountants, Toronto, respecting the accounts.

Geo. W. Lee, Esq., Chairman,
Temiskaming and Northern Ontario Railway Commission,
North Bay, Ontario.

Dear Sir,—

Acting under instructions from the Commissioners, we have conducted an audit of the Treasurer's accounts for the year ending October 31st, 1923.

In our opinion, all receipts have been properly accounted for and satisfactory vouchers are on hand to cover disbursements. We have checked the balances in the hands of the treasurer and find them to be in agreement with the accounts as shown by the general ledger.

The accounts of the treasurer are in good order and well kept. All information asked for has been cheerfully given. We also wish to acknowledge the courtesies of the Commission and its employees at all times.

Yours very truly,

Edwards, Morgan & Co.

ANNUAL REPORT LEGAL DEPARTMENT

Litigation

At the close of the financial year there were no actions pending in which the Commission was defendant.

The only action brought against the Commission during the year was that of Peterson vs. T. &. N. O., being an action for damages to the plaintiff's property by flooding alleged to have been caused by the blocking up of a culvert under the Commission's right of way. Settlement of the action was made before trial on terms satisfactory to the Commission.

Extension North of Cochrane

Disputes having arisen with Grant, Smith & Company and McDonnell, Limited, with reference to their contract, negotiations resulted in a compromise and settlement, the Commission taking over the balance of the work covered by the contract. The contractors claimed to have lost heavily and to be entitled to compensation. The matter has been adjusted on terms satisfactory to the Commission.

Grand Trunk Railway, Grand Trunk Pacific, National Transcontinental Railway

This matter is still standing for adjustment. Meantime the temporary through train service over the Commission's line is being maintained.

North Bay Terminal Facilities

The Grand Trunk Railway is being provided with terminal facilities at North Bay under temporary arrangements with the Commission. Negotiations are pending looking to the cancellation of the running rights agreement and the substitution therefor of a new agreement with Canadian National Railways covering use of the terminal facilities at North Bay only.

The temporary agreement with the Canadian Northern Ontario Railway providing for the use by that company of the Commission's terminal facilities at North Bay is still in effect.

North Bay Passenger Station Facilities

An agreement has been entered into with the Canadian Northern Ontario Railway Company on terms satisfactory to the Commission, providing for the use by the Commission of the passenger station facilities of the Canadian Northern Ontario Railway Company at North Bay.

Nipissing Junction Spur Agreement

Negotiations have been concluded with the Canadian National Railways for the cancellation of the agreement dated 1st May, 1911, between the Commission and the Grand Trunk Railway Company of Canada covering the use of the Nipissing Junction spur. Formal agreement not yet executed.

Mining Leases

Right of Way Mines, Limited

A satisfactory adjustment having been made of the claim of the Commission for the expenses incurred in the repair of its right of way and tracks, due to a subsidence caused by mining operations, this original lease has been surrendered by the trustee in bankruptcy of Right of Way Mines, Limited, and a new lease of the property has been granted to one E. J. Daly on terms satisfactory to the Commission.

Coniagas Mines, Limited

A renewal of the lease for two years of part of lot 43, Cobalt, containing six acres more or less was granted to Coniagas Mines, Limited, on terms satisfactory to the Commission.

General Examining & Developing Company, Limited

A renewal of lease for two years of part of lot 43, Cobalt, containing six acres more or less, was granted to General Examining & Developing Company, Limited, on terms satisfactory to the Commission.

Baldwin Gold Mining Company, Limited

A lease of mining rights under the right of way of the Commission at milage 167½, was granted to Baldwin Gold Mining Company, Limited, on terms satisfactory to the Commission.

Tie Creosoting Plant

Negotiations are pending with Calders, Limited, for the establishment of a creosoting plant at Cochrane. Draft agreement has been prepared but terms not yet finally settled.

Damage Claims

As usual a considerable number of claims have arisen during the year with respect to freight lost, destroyed, delayed, mislaid, or damaged; also claims for horses and cattle killed or injured on the Commission's right of way. Most of these claims have been adjusted or abandoned.

Agreements, Leases, Contracts, Etc.

As usual a great many agreements, leases, contracts and other documents covering various miscellaneous matters between the Commission and others have been prepared and executed, including agreements for renewal of restaurant news privileges on the Commission's line of railway.

Nipissing Central Railway

Litigation

At the end of the financial year there were no actions pending in which the Nipissing Central Railway was either plaintiff or defendant. No actions were brought by or against the company during the year.

Charter

A private Act of the Dominion Parliament has been obtained extending the time for the completion of the railway north of New Liskeard.

Kirkland Lake Branch

A contract has been entered into with R. A. R. Sinclair and I. M. R. Sinclair for the construction of the Kirkland Lake Branch of the Nipissing Central between Swastika and Larder Lake, a distance of approximately twenty-five miles, on terms satisfactory to the company.

Damage Claims

A number of claims have arisen during the year in respect of personal injuries and for horses and cattle killed or injured on the company's right of way. Most of these claims have been adjusted or abandoned.

Leases, Agreements, Contracts, Etc.

As usual a considerable number of agreements, contracts, leases, and other documents covering various miscellaneous matters between the company and others have been prepared and executed.

Miscellaneous

Numerous questions on various subjects and matters affecting the Commission and the Nipissing Central Railway have arisen during the year calling for the consideration and advice of the legal department.

SUPERINTENDENT'S REPORT

I beg to submit the following report of the Transportation, Maintenance of Way, Mechanical, and Telegraph and Telephone Departments of the Temiskaming and Northern Ontario Railway for the year ending October 31st, 1923.

Time Table Changes

Necessary alterations in train service have been made to meet traffic requirements under current time table effective Sunday, September 30th, 1923, train service is as follows:

Main Line

Trains Nos. 17 and 18 daily except Sunday between North Bay C.P.R. depot and Cochrane. C.P.R. sleeper operated on this train making through service between Montreal and Timmins.

Trains Nos. 46 and 47 daily except Sunday between North Bay C.N.R. depot and Timmins. Effective Monday, August 27th, 1923, parlor cafe cars were operated on these trains between North Bay and Timmins. These trains are in interline service operating to and from Toronto via C.N.R.

Trains Nos. 1 and 2, "The Continental Limited," operate daily between Montreal, Que., and Vancouver, B.C., via North Bay and Cochrane.

Branch Lines

Elk Lake Branch—Mixed train service daily except Sunday and on Thursdays only, two trains each way connecting with main line trains at Earlton Jct.

Charlton Branch—Two mixed trains daily except Sunday in each direction, making connections with main line trains at Englehart.

Iroquois Falls Branch—Four passenger trains daily except Sunday in each direction, making connections at Porquis Junction with main line trains and with trains operating on the Porcupine sub-division. Sunday—Two passenger trains each way, giving through service to and from points on the Porcupine sub-division and connecting with main line trains.

Porcupine Branch—Four passenger trains each way daily except Sunday between Timmins and Porquis Junction, with one passenger train each way on Sunday, giving through service to points on the Iroquois Falls sub-division and connecting with main line trains.

Stations Opened

Val Gagne station was opened as an agency point on March 7th, 1923.

Maintenance of Way and Structures

Mileage operated is as follows:

	Miles	Miles
Main Line		
North Bay to Cochrane		252.29
Branch Lines		
Charlton Branch	7.60	
Porcupine and Iroquois Falls	40.11	
Elk Lake Branch	28.50	
		76.21

Yards and Sidings		
Main line and branches	116.95	
Liskeard spur	1.12	
Mattagami River spur	2.96	
		121.03
Double track		1.70
Leased to Nipissing Central Railway		
Main track	10.45	
Yard tracks and sidings	1.55	
Private sidings	1.73	
		13.73
Total Mileage		464.96

On September 23rd the Canadian National Railways discontinued the use of the Nipissing Junction spur as an entrance to North Bay for the trains from the south, a connection having been constructed between the Ottawa and Toronto lines of that railway a short distance south of Nipissing Junction. The Nipissing Junction spur, extending from North Bay Junction to Nipissing Junction, a distance of approximately 2.10 miles, was constructed by the T. & N. O. Railway in 1911, and leased to the Grand Trunk Railway System, the operation of trains over this spur starting in December of that year.

There was a small decrease in the mileage of yard tracks and sidings which, together with the abandonment of the Nipissing Junction spur, accounts for the decrease in total mileage operated.

Additions

A large programme of betterments to the property and of maintenance of way work was carried out during the year, also the buildings to replace those destroyed by the fire of October 4th, 1922, have all been completed, with the exception of the station at Haileybury, which is still under construction.

All work, with the exceptions as noted below, was done by our own forces.

The buildings erected to replace those destroyed by the fire of October 4th, 1922, are as follows:

North Cobalt—A combined station and agent's dwelling, 35 feet by 21 feet, of frame construction, was built by contract. H. L. Gomoll was the contractor for this building.

A freight shed, 50 feet by 25 feet, and a small oil house, both of frame construction, were built at this place.

Haileybury—A brick passenger station, 93 feet by 28 feet, is now under construction by contract. Hill-Clark-Francis, Limited, of New Liskeard, are the contractors for this building. Filling is now being delivered by our own forces to make the necessary roadway approaches at the rear of the new station.

A freight shed, 150 feet by 30 feet, a small oil house, a standard agent's dwelling, a section dwelling, 45 feet by 22 feet, and a standard tool house, 14 feet by 16 feet, all of frame construction, were built at this point.

Maybrook—A standard shelter station, 30 feet by 10 feet, was built at Maybrook.

Thornloe—A combined station and agent's dwelling, 44 feet by 25 feet, a freight shed, 50 feet by 25 feet, a section dwelling, 27 feet by 26 feet, and a section employees' bunk house, 26 feet by 18 feet, all of frame construction, also a metal-clad tool house, 14 feet by 16 feet, were built at this place.

Heaslip—A standard shelter station, 30 feet by 10 feet, a section dwelling, 28 feet by 26 feet, and a section employees' bunk house, 26 feet by 18 feet, all of

frame construction, also a metal-clad tool house, 14 feet by 16 feet, were built at this point.

Dack—A standard shelter station, 30 feet by 10 feet, was provided at this flag stop.

Charlton—A combined station and freight shed, 120 feet by 25 feet, and a standard section dwelling, both of frame construction, were built at this place. In addition a section employees' bunk house was provided.

Kenabeek—The standard section house destroyed at this place was rebuilt, and in addition a section employees' bunk house, 26 feet by 18 feet, was provided. Both these buildings are of frame construction.

In addition to the above, the top portion of the Jean Baptiste trestle on the Elk Lake branch, which was destroyed by the fire of October 4th, 1922, was rebuilt.

The principal additions to property made during the year are as follows:

North Bay—An addition, 80 feet by 40 feet, of brick and steel frame construction, is now being made to the Head Office building. Messrs. Jeffery and Stevens are the contractors for this building.

A standard frame section dwelling is being built on Commission's property at Gore Street, by the Standard Planing Mills, Limited, in exchange for lot 34, just east of Chippewa Creek, which is being used by that firm as a site for a new office building.

North Bay Junction—An extension was built to the shelter for the rail saw.

A crossover was installed in the east end of the yard to facilitate the movement of the C.N.R. freight trains to and from this yard.

No. 2 yard siding (formerly siding on old coal chutes) was extended and made into a through siding.

Doherty—A spur siding 950 feet long was put in for Wm. Milne and Sons, for loading logs.

Temagami—Alterations and improvements were made to the station restaurant.

A new drain and a septic tank were installed for the station lavatories.

Mileage 109¾—A new transfer siding 780 feet long was constructed to improve the facilities for the interchange of traffic with the Nipissing Central Railway.

New Liskeard—The new freight shed under construction at the close of the last fiscal year was completed. This building was erected by contract.

A spur siding 373 feet long was put in for Imperial Oil, Limited, to serve their warehouse at this place.

An extension of 155 feet was made to Conlin and Walsh's siding for the Geo. Taylor Hardware, Limited, to serve this firm's warehouse, south of Whitewood Avenue.

Heaslip—A well for the section dwelling was drilled by contract.

Englehart—The 200-ton mechanical coaling plant under construction at the close of the last fiscal year was completed.

An extension, 30 feet by 15 feet, of frame construction, was made to the dwelling at the greenhouse.

A shelter for the steam crane, 50 feet by 15 feet, of frame construction, was built in a suitable location.

Mindoka—A standard shelter station, 30 feet by 10 feet, was built at this point.

Dane—The main line and the passing siding in Dane yard were lifted

and ditches dug adjacent to these tracks to improve the condition of the tracks through this yard.

Swastika—The extension to the freight shed under construction at the close of the last fiscal year was completed.

Mileage 169.5—A side track 355 feet long was put in for Knight Bros. and McKinnon Limited, for the loading of forest products.

Ramore—The combined station and agent's dwelling with freight shed attached, under construction at the close of the last fiscal year, was completed. This building was erected by contract.

A well to serve the section dwelling and the agent's dwelling was drilled by contract.

Matheson—A platform for the unloading of automobiles and heavy machinery was built at this station.

Mileage 216.7—An extension of 462 feet was made to the public spur siding for Scace and Niemi to serve their sawmill at this point.

Porquis Junction—A wooden shelter was built around the steel water tank at this place.

Niddville—A side track, 405 feet long, adjacent to the passing siding, was put in for J. Drinkwater for the loading of forest products.

Cochrane—A basement with a furnace and lavatories is now being built under the freight shed office.

Iroquois Falls—A side track, 637 feet long, was put in to increase the facilities for handling carload shipments at this station.

Mileage 11.0, Porcupine Branch—A siding, 1,580 feet long, was put in for T. S. Woollings Co., Ltd., to increase the facilities for loading pulpwood at this point.

Mileage 32.5, Porcupine Branch—An extension of 120 feet was made to the spur siding of the Hollinger Consolidated Mines, Limited.

Timmins—A spur siding 369 feet long was put in for the National Grocers, Ltd., to serve their warehouse.

An extension of 162 feet was made to J. W. Fogg's siding at "A" Avenue.

Mileage 12.3, Elk Lake Branch—An extension of 99 feet was made to the public side track at this point for McCauley and Robinson, for loading forest products.

New right-of-way fencing was built as follows:

On west side of station grounds at Temagami, 330 rods, and along the north side of the station grounds at Englehart, 344 rods. The fence at Englehart was built by contract.

Considerable widening of embankments was done at various locations on roadmaster's districts No. 1 and No. 2.

A large number of public and private road crossings were installed on the main line and branches.

Renewals

Owing to the amount of other work to be done, only a few wooden culverts were replaced with permanent concrete pipe culverts by the B. & B. Department, but very extensive repairs were made to bridges, buildings, water service lines and station platforms by this department. The concrete station platforms at Temagami, Cobalt and Englehart were repaired and put in good condition. The roof of Cobalt station was reshingled. The wooden platform at New Liskeard station and the tub and substructure of the water tank at Cochrane were renewed. Repairs were made to a large number of other buildings and structures.

Repairs to buildings completed or now being done by contract include the repairing of the underside of the concrete roofs on the roundhouses at North Bay Junction and Englehart by the Gunite method and the applying of new rubberoid covering to these roofs and to the roofs on the machine shops at both these points, and also the heating and plumbing systems in Englehart station and all the Commission's buildings at Iroquois Falls were thoroughly overhauled and put in good condition.

The standard colour of paint was changed this year from green with a buff trim to a body colour of antique brown and a trim of tan brown. All new buildings were painted with the new standard colours and in addition the buildings at the following places were repainted:

Mulock, Tomiko, Redwater, Temagami, Owaissa, Rib Lake, Earlton Jct., Keyson, Porcupine, South Porcupine, Schumacher and Timmins.

Rail Renewals

New 90 lb. A.R.A. type A. rail was supplied for 25 miles on track but not all this rail was laid at the close of the fiscal year, although this work will be completed by the end of November.

At the close of the fiscal year new 90 lb. rail had been laid as follows:—

M.P. 9.25 to M.P. 15.25—Main line	6.0 miles.
M.P. 30.8 to M.P. 33.3 — "	2.5 "
M.P. 94.0 to M.P. 99.0 — "	5.0 "
M.P. 104.0 to M.P. 109.9 — "	5.9 "
Total	19.4 miles.

The balance of the new 90 lb. rail is being laid from M.P. 1.0 north on the main line.

The new rail was laid with continuous joints, and tie plates are being applied on both curves and tangents.

Ballasting

Main track was ballasted as follows:—

M.P. 99.0 to M.P. 102.0	2.0 miles.
M.P. 120.5 to M.P. 128.0	7.5 "
M.P. 171.8 to M.P. 178.0	7.2 "
Total	16.7 miles.

In addition to the above a considerable amount of ballast was delivered for patching on Districts No. 1 and No. 2.

The total number of ties used during the year is as follows:—

	District No. 1	District No. 2	District No. 3	Total
Renewals—Main track and sidings	38,684	60,602	58,905	158,191
N.C. Railway	.....	4,721	.....	4,721
Construction and other purposes	283	1,015	1,158	2,456
Total	38,967	66,338	60,063	165,368

Approximately 9,000 rods of right-of-way fence was rebuilt between New Liskeard and Earlton Junction by contract.

Telegraph and Telephone Department

During the fiscal year ending October 31st, 1923, twenty-three telephones were installed and eight were removed and a pay station was opened at Devonshire.

In the month of May the No. 3 telegraph wire was extended from Cobalt to New Liskeard and loops were cut in at Haileybury and New Liskeard.

The local iron telephone circuit between Cobalt and Haileybury was replaced with No. 9 B. & S. copper wire, and extended to New Liskeard.

A No. 12 iron wire, metallic circuit, was strung from Connaught to Drinkwater Pit, and connected to the telephone line constructed by the Night Hawk Peninsula Mining Company from their plant at Night Hawk Lake.

On August 13th a commercial telegraph office was opened in the station at Timmins.

The Haileybury town pole line, which was destroyed by fire October 4th, 1922, was rebuilt, and a 40 ft. pole lead, with two six-pin cross-arms was erected, also five pairs of No. 9 copper wires were strung. A telegraph office was also opened in the premises of the Noice Drug Company, Haileybury, on August 23rd, Mr. A. E. Noice being appointed Local Agent to handle all commercial telegraph business on a commission basis.

No serious interruptions were experienced by fires or storms, and all lines have been kept in good condition during the year.

James Bay Extension

On July 17th the erection of the pole line from Union Station, Cochrane, to second crossing of Abitibi, Mileage 44.5 was commenced. Six-pin cross-arms were erected and one pair of No. 9 copper wires were strung. Line was completed on October 8th.

The following is a summary of telegraph and telephone wires in operation October 31st, 1923:

Kind	Gauge	Use	Mileage
Iron	No. 8 B.W.G.	Telegraph	1,693
Iron	No. 12 B.W.G.	Long Distance Telephone	127
Iron	No. 12 B.W.G.	Local Exchange and Party Lines	224
Copper	No. 9 B. & S.	Telephone Train Dispatching	573
Copper	No. 9 B. & S.	Long Distance Telephone	100
Copper	No. 10 N.B. & S.	Long Distance Telephone	1,208
		Total Wire Mileage	4,153
		Total Pole Mileage	380
		Phantom Circuits in operation (miles)	257

General Remarks

Equipment, roadbed, track and structures have been fully maintained throughout the year.

Reports of Chief and District Surgeons are also enclosed herewith.

Respectfully submitted,

W. A. Griffin,
Superintendent.

Drs. McMurchy, McMurphy and Campbell, North Bay, Ont.

In submitting the annual report for the year ending October 31st, 1923, am pleased to state that during the past year the accidents that have occurred on this part of the line have been of a very minor nature, and the Company are to be congratulated that their officials and employees in general take the interest in the welfare of the road which is evidenced by this report.

Yours very truly,
A. H. McMurchy.

Dr. E. W. Mitchell, Cobalt, Ont.

The following accident cases were treated by myself.

Andrews—freight shed, Cobalt—injured foot.
Milligan—freight shed, Cobalt—injured hand.
Thos. Boyce, Englehart—fracture of right fibula, treated in Mines Hospital, Cobalt, October 18th to October 26th.

Yours truly,
E. W. Mitchell.

Dr. J. W. Fraser, Cochrane

I have the honour to submit the following report as District Surgeon at this point for the year ending October 31st, 1923.

Fractured leg	1 case
Fractured finger	2 cases
Injured knee	3 "
Lacerated hand	8 "
Lacerated arm	2 "
Lacerated thigh	1 case
Lacerated foot	4 cases
Injuries to face	8 "
Foreign body in eye	21 "

In addition to the above there were the usual numerous cases of minor bruises and abrasions requiring one office call and for which no records were kept.

I take this opportunity of extending my gratitude to the officials of the railway for their many courtesies extended to me during my term as District Surgeon here, which position was taken over on November 1st by Dr. W. S. Paul, who is taking over my Cochrane practice.

I am, Sir,
Faithfully yours,
J. W. Fraser.

Dr. H. H. Moore, Timmins

I herewith beg to report the cases attended at the families of employees of the Temiskaming and Northern Ontario Railway for the past year.

Disease	No. Cases	Disease	No. Cases
Bruise	1	Myocarditis	1
Colds	8	Measles	1
Dizziness	1	Neuritis	1
Fracture	1	Puerperal septicæmia	1
Gastritis	3	Sprain	1
Grippe	1	Typhoid fever	1
Hæmorrhoids	1	Varicose ulcer	1
Laceration	1		25
Myalgia	1		

Yours very truly,
H. H. Moore.

Drs. J. S. & J. C. McCullough, New Liskeard, Ont.

I beg to submit herewith annual report of surgical cases treated for the T. & N. O. Rly. for the year ending October 31st, 1923.

I am glad to say that all cases treated during this period were of minor nature, including infected hands and bruises, with the exception of one case. This was a man who was fatally injured at Thornloe. He was brought to New Liskeard on the train, but death took place before arrival here.

Yours truly,

J. S. McCullough,
District Surgeon.

Dr. J. G. McKee, Elk Lake

There have been no epidemics among employees during year and no major accidents and no wrecks along this branch.

Number of sick calls in Elk Lake	163
Number of office calls or consultations	94
Number of sick calls outside of Elk Lake	26
Number of minor accidents	5

Respectfully submitted.

J. G. McKee, M.D.,
District Surgeon Elk Lake Branch T. & N. O.

Dr. Geo. Cooper, Englehart

Report Year Ending October 31st, 1923.

Broken bones, 7; dislocations, 3; cuts, 20; lacerations, 23; septic wounds, 16; strains, 26; scalds, 4; deaths due to injury, 4. Attendance to passengers on trains, 35.

Yours very truly,

Geo. Cooper.

Dr. W. C. Arnold, Haileybury

Replying to request for report on the work as district surgeon for the period in which I have been acting as such, I have no detailed report to submit as there has been so little illness or other calls on me in the capacity of district surgeon. There have been a few minor accidents and these men have been reported to and treated under the direction of the Workmen's Compensation Board. There has been no illness among the employees of the T. & N. O. Rly. in this section. I have great pleasure in submitting such a clean bill of health and hope that the lack of detail will not be a vital omission.

I acknowledge with thanks the receipt of 1924 pass and appreciate very much the courtesy.

I remain, yours very respectfully,
W. C. Arnold.

MOTIVE POWER AND CAR DEPARTMENT

Beg to submit the following report of the Motive Power and Car Department, for the year ending October 31st, 1923:

Locomotives

Contract has been let to the Canadian Locomotive Company for four Mikado type locomotives, delivery of same to be made by the end of 1923.

These engines will be of the T. & N. O. Ry. standard freight type with the addition of Boosters and feed water heaters. Other equipment includes Schmidt superheaters, Ragonnet reverse gear, Walschaert valve gear, Commonwealth Co's. trailing truck, Commonwealth Co's cast steel tender frame, vestibule cab, Franklin fire door, Nathan water column, Pyle-National electric headlight, Westinghouse E-T-6 brake with 8½-inch cross compound air-pump.

Arrangement has been made with the Canadian Locomotive Company, for the rebuilding of one, ten-wheel locomotive No. 125 and one Mikado locomotive No. 146.

Freight Cars

The National Steel Car Corporation delivered fifty steel-frame single sheathed box cars—series Nos. 80400 to 80498, (even numbers).

These are 36 ft. long inside, 80,000 lbs. capacity, and are equipped with A. R. A. cast steel trucks, A. R. A. 6 in x 8 in. couplers with Cardwell draft gear, Camel door fixtures and Hutchins steel roof.

The National Steel Car Corporation also completed the rebuilding of fifty box cars of the series 80000 to 80198.

Up to the end of October, 1923, application of steel draft sills has been made to 121 cars of wood construction of various classes, and same have been equipped with A. R. A. No. 2 trussed brake beams and standard safety appliances.

Shop Machinery

During the year the following new tools have been purchased:

One 42-in. engine lathe. One 10-ft. plate flanging clamp. Two 50-ton Duff high-speed jacks. One double spindle wood shaper.

Electrical Installations

The necessary electrical work for the following was completed during the year:

North Bay

Electric drive for 42-in. engine lathe. Extensions to battery charging circuits and yard lighting facilities, and numerous additions for lighting the various shops and offices.

North Cobalt & Haileybury

Electric wiring installed in new freight shed.

Englehart

Electrical installation for driving and lighting coal chutes, and for lighting crane shelter building.

Charlton

Electric wiring installed for station, freight shed, and section house.

Porquis Jct.

A transmission line was built from Iroquois Falls for supply of electric power at Porquis Junction.

Cochrane

Wiring in roundhouse was renewed and lights installed in new basement at freight office. Additions were made to yard lights.

General

The work of equipping locomotive tenders for electric lighting has been commenced and about 50 per cent. of tenders are now so equipped.

The equipment of cafe cars was overhauled and installation completed for these cars to go into service on Trains Nos. 46 and 47.

A battery charging plant to take care of coaches on these trains will be completed shortly at Timmins. A large number of minor alterations, repairs and additions were made to the electrical installations at various points on the railway.

Engine Despatch

Statement showing the number of engines despatched from the different terminal and divisional points during the year:

Station	Number of engines dispatched
North Bay Junction	9,456
Englehart	6,687
Cochrane	2,151
Timmins	1,485
Iroquois Falls	313
Elk Lake	377
Total	20,469

The motive power has been generally assigned during the year as follows:

Class of Service	Number of Engines
Passenger	16
Freight	27
Work	3
Switching	6

Locomotive Mileage

The following statement shows the mileage made by locomotives, belonging to this railway during the year:

Engine Number	Mileage	Engine Number	Mileage
109	11,472	136	34,116
110	15,193	137	38,008
111	33,629	138	37,101
112	40,309	139	46,906
113	30,634	140	42,501
114	.....	141	39,609
115	27,862	142	42,079
116	22,176	143	48,546
117	17,934	144	47,438
118	24,698	145	28,809
119	21,309	146	38,404
120	30,127	147	42,615
121	22,829	148	37,616
122	24,370	149	55,941
123	27,805	150	44,316
124	39,538	151	25,620
125	23,640	152	26,133
126	8,372	153	33,607
127	28,642	154	25,752
128	40,086	155	34,973
129	31,408	156	28,947
130	30,131	157	37,881
131	34,872	158	45,080
132	21,710	159	36,766
133	55,489	160	52,367
135	65,974	200	38,460

Summary of Extensive Repairs to Locomotives

Since November 1st, 1922, the following locomotives have been through the shops at North Bay Junction for repairs:

Given general repair—157, 139, 143, 200, 127, 128, 144, 152, 137, 110, 116, 158, 113, 145, 119.

Engines numbers—121, 122, 123, 124, 125, 126 and 138 received general repairs at the Canadian Locomotive Works, Kingston, Ontario.

Given heavy repairs—111, 129, 122, 112, 115, 120.

In addition to the above, engine 200 received heavy repairs at the Canadian Locomotive Works, Kingston, Ontario.

Given light repair—130, 145, 147, 148, 120, 123, 159, 111, 118, 146, 150, 133, 131, 156, 149, 143, 129, 200, 135, 148, 117, 140.

NOTE.—The term "General Repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuild. "Heavy Repair" refers to cases where engines have been given such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushing renewed. "Light Repair" covers a case where an engine has received repair such as renewal of side rod bushings, piston rings and valve rings.

All requirements of the Dominion Railway Commission in regard to washing out and testing boilers, testing staybolts, examining nettings and dampers, etc. have been fully complied with, and during the summer months, periodical inspection of all fire fighting protective appliances has been made by our inspectors.

Repairs to Passenger Equipment

Repairs have been made to passenger equipment at North Bay Junction shops as follows:

Class of Car	General Repair	Light Repair
First class	..	5
Second class	..	6
Mail and express	..	3
Baggage and express	..	3
Business cars	1	3
Combination cars	..	1
Cafe cars	..	3
Total	1	24

NOTE.—The term "General Repair" as applied above refers to cases where a coach has had the interior and exterior finish of car removed, framing refitted, new steel sills applied and trucks rebuilt. The term "Light Repair" applies to coaches having seat arms scraped and sanded, interior varnished, outside of car washed down and given two coats of varnish, and trucks repaired.

Coach Cleaning

Statement showing the number of coaches cleaned at the different stations during the year:

Station	Number of Coaches Cleaned
North Bay Junction	7,100
Englehart	1,078
Cochrane	2,160
Timmins	3,170
Elk Lake	632
Iroquois Falls	736
Total	14,876

Repairs to Work and Freight Equipment

The Car Department staff have made repairs to flat, Hart, stock and box cars, including general overhauling and rebuilding. All necessary running repairs to both T. & N. O. and foreign freight and passenger equipment have been made by the repair staffs at different terminal and divisional points to keep equipment in condition to fulfil the requirements of the service and safety standards.

Monthly bills have been rendered against foreign roads to cover repairs to their equipment in accordance with Rules adopted by the American Railway Association. Bills have also been rendered monthly against the Grand Trunk Railway and the Canadian National Railways for repairs to cars under the terms of the Terminal Agreement.

All work equipment, such as snow plows, snow flangers, wrecking outfits, steam shovels, railroad ditcher, boarding cars, hoisting crane, etc., have been overhauled and given such repairs as required to keep them in serviceable condition. This also includes the C.N.R. steam crane damaged at M.P. 205¾.

Equipment Owned

46 road locomotives
6 switching locomotives
3 business cars
1 paymaster's car
13 first class wooden coaches
6 first class steel coaches
13 second class wooden coaches
second class steel coaches
2 combination wooden second class and baggage cars
1 combination wooden first class and baggage car
1 exhibition car
3 parlour cafe cars
6 wooden baggage and express cars
4 steel baggage and express cars
4 wooden mail and express cars
3 steel mail and express cars
30 conductors' vans
8 stock cars
286 box cars
88 steel underframe flat cars
215 wooden flat cars
12 steel drop bottom dump cars
60 Hart convertible cars
4 12 yard dump cars
3 wooden snow plows
1 steel snow plow
3 snow flangers
3 right hand ballast plows
3 left hand ballast plows
3 centre ballast plows
2 ballast spreaders
2 ledgerwood rapid unloaders
1 pile driver
1 American railroad ditcher
1 hoisting crane
3 steam shovels
2 steam wrecking cranes
2 auxiliary boarding cars
2 auxiliary tool cars
2 road department auxiliary cars
2 auxiliary track material cars
2 crane cabin cars
3 road cabin cars
1 pile driver tank car
55 boarding cars
4 tank cars for fire protection
8 combination boarding and material cars
6 maintenance of way material cars
1 car department material car

Yours truly,

T. Ross,

Master Mechanic.

ENGINEERING DEPARTMENT

I beg to submit my annual report as chief engineer of the Temiskaming and Northern Ontario Railway for the fiscal year ended October 31st, 1923.

James Bay Extension

At the beginning of the year, track had been laid to Mile 19.2 from Cochrane, by Grant Smith & Co., and McDonnell, Ltd., to whom the Commission had awarded a contract for seventy miles of an extension north from Cochrane. The contract called for the track to be laid to the second crossing of the Abitibi River at Mile 44.4 before December 31st, 1922, but it was in the month of March before track reached the river. The piers, pedestals and abutments were completed in July last and since then the Hamilton Bridge Works Company has been at work erecting the steel work. It will probably be December 15th, 1923, before this bridge will be so far completed as to permit the passage of trains.

In the meantime Grant Smith & Co. and McDonnell, Ltd. had practically completed the grading between Mile 44.4 and Mile 70, the end of their contract, also the concrete bridge foundations and culverts between Cochrane and the second crossing of the Abitibi River. The track from Cochrane to Mile 28 had received a second lift of ballast and from Mile 28 to Mile 43 a first lift. Train-filling to Mile 27.3—the first crossing of Jawbone Creek was also completed.

On November 1st, 1923, in accordance with an agreement the Commission entered into with Grant Smith & Co. and McDonnell, Ltd. on October, 16th. the work will be taken out of the hands of the contractors and completed by the Commission. A tri-weekly mixed train service will then be inaugurated between Cochrane and Island Falls Jct, Mileage 43. At Island Falls Jct. connection is made with a spur line about three miles long that is being built by the Hollinger Consolidated Gold Mines, Ltd. to its power plant, now under construction at Island Portage on the Abitibi River.

The Hamilton Bridge Works Company has also completed the erection of steel bridges at the Abitibi River, M. 11.3, and Sucker Creek, M. 20.3. The bridges at East Jawbone Creek, M. 27.3, West Jawbone Creek, M. 29.5 and Trappers Creek, M. 36.0, will be erected the coming winter on completion of the Abitibi River bridge, M. 44.4. The bridge at Red Sucker Creek, M. 52.5, cannot be erected until after track has been laid to the bridge site.

Considerable difficulty has been encountered in obtaining satisfactory ballast without the necessity of long train haul. Most of the ballast has come from a pit three miles south from Cochrane. Small quantities of ballast have been obtained from trainfill pits at Miles 4, 19 and 28. A pit will also be opened beyond the second crossing at Mile 61.

Location Surveys for a further extension from Mile 70 to the mouth of the Moose River have been completed and the Commission is now in a position to call for tenders for the further extension at any time. The route selected closely follows the west bank of the Abitibi River to a point opposite the entrance of the Little Abitibi River. It will be conveniently located with reference to the large water-power sites on the Abitibi. From the mouth of the Little Abitibi the route strikes across to the Moose River, which is crossed just below the entrance of the Missinaibi River. After crossing the Moose, the location is on the west side of the river to a terminus at Revillon's Moose River Post.

The exact location of a terminal has not been made, but it should be on the west side of the estuary of Moose River, not far from Revillons, possibly a few miles further down the harbor where the existing channel is deeper.

A location with maximum grades of one half of one per cent. and maximum curvature of four degrees has been obtained. Except in the vicinity of New Post, M. 73 to M. 78, the grading throughout is very light. At this point very heavy work will be required in crossing a section of badly broken country. However, there will be very little rock excavation encountered. The bridge across the Moose River, M. 134, will be quite a large structure, probably one thousand feet long, but long spans will not be required as foundation conditions are good. In addition, smaller structures will be required at the following rivers: Onokawana River, M. 118, Otakawakegan River, M. 159, Cheepask River, M. 163, Chemahegon River, M. 171 and Khawatabohegan River, M. 174.

Nipissing Central Railway Company Swastika Branch

A decision having been reached to build a branch line of railway from Swastika to Larder Lake under the charter of the Nipissing Central Railway Company, tenders were called for grading, track-laying and ballasting, and on June 14th, 1923, a contract was awarded to Messrs. Sinclair and Sinclair of Toronto. The contract calls for track to be laid from Swastika to Larder Lake on or before December 31st, 1923, and the entire work to be completed on or before September 1st, 1924.

This branch has maximum grades of 1.5 per cent. compensated for curvature, and maximum curvature of 12 degrees. The distance from Swastika to a suitable station site near the Crown Reserve and Associated Gold Fields properties at Larder Lake is twenty-three and one-half miles. Surveys for a further extension of the branch to the interprovincial border, or beyond to the Lake Fortune and Rouyn gold area in the Province of Quebec, are now being made.

Additional Track and Structures

Under the direction of the Engineering Department, during the year, a number of additions and betterments have been made to the operated lines of the Commission. The more important of these are:

Fuel Stations

The new mechanical coaling station at Englehart, of 200 tons capacity, was completed.

General Office Building

An addition to the general offices is being made to accommodate the entire office staffs of the Commission and its operating officers. This addition is three-stories high, and 42 ft. 9 ins. wide and 80 ft. long. It is of solid brick with steel and tile floor construction. The contractors, Messrs. Jeffrey and Stevens of North Bay, will complete the new building in February, 1924.

Station Buildings

At the beginning of the year a new brick freight shed and office was under construction at New Liskeard. This has been completed and is now in use.

A new frame combined station and agent's dwelling that was under construction at Ramore was also completed.

It was necessary to build a number of stations and freight sheds to replace those destroyed by forest fires on October 4th, 1922.

At Haileybury, a brick station, 27 ft. by 93 ft., is being built under contract by Messrs. Hill, Clark and Francis, of New Liskeard. This station is of attractive design and, when the grounds are graded to conform to a plan submitted by the landscape architect retained by the town, it will add greatly to the appearance of the town. The building will be completed about December 15th, 1923.

At Haileybury a new frame freight shed, 30 feet by 150 feet, was built by the Commission's forces.

At North Cobalt, a new frame combined passenger station and agent's residence was built on the foundation of the former building by H. L. Gomoll, contractor of North Bay. A frame freight shed was also built by day labour.

At Thornloe, a frame combined passenger station and agent's residence was built on the old foundation, also a new freight shed, both by Commissioner's forces.

At Charlton a frame station and freight shed, 25 feet by 120 feet, was built by Commission's forces to replace the building destroyed by fire.

Employees' Dwellings

A new agent's residence at Haileybury and new section houses at Haileybury, Thornloe, Heaslip, Charlton and Kenabeek were built by Commission's forces to replace those destroyed by fire.

Yours truly,

S. B. Clement,

Chief Engineer.

GENERAL FREIGHT AND PASSENGER DEPARTMENT

Freight traffic for the fiscal year ending October 31st, 1923, has shown a steady increase over that for the year previous. A comparison of freight tonnage handled and revenue derived therefrom, shows the following result:

Tonnage 1923	1,550,651	Revenue	$3,431,621 04
Tonnage 1922	1,185,453	Revenue	2,779,673 11
Increase	365,198	Increase	$651,947 93

This result is due to increased movement of practically all commodities, such as grain and grain products, hay, straw, fruit, vegetables, meat and packing house products, poultry, eggs, butter, hides, mine products, lumber, pulpwood and other forest products, wood pulp, paper and general manufactured goods.

During the early summer the Northern Canada Power, Limited, started construction on their new power plant at Des Quinze, which furnished us a large tonnage of structural material of all kinds.

The power development which has been undertaken by the Hollinger Mines at Island Portage, the mining activity through the north and conditions generally, promise a good volume of traffic for the ensuing year.

Passenger traffic also shows a very favourable comparison with last year, as indicated by the following.

Passengers carried 1923	708,144	Revenue	$1,273,807 69
Passengers carried 1922	633,491	Revenue	1,097,394 03
Increase	74,653	Increase	$176,413 66

The following passenger train a service has been in effect throughout this period:

Main Line

Trains Nos. 17 and 18, daily except Sunday, between North Bay (C.P.R. Station) and Cochrane, operating C.P.R. sleeper between Montreal and Timmins.

Trains Nos. 46 and 47, daily except Sunday (using C.N. Rys. Station, North Bay) between Toronto and Englehart up to December 2nd, 1922, after which date they were operated through to Timmins, handling through sleepers.

Trains Nos. 1 and 2 "The Continental Limited", daily (using C.N. Rys. Station, North Bay) between Montreal, Que. and Vancouver, B.C., via T. & N. O. Railway and Cochrane.

Branch Lines

Elk Lake Branch

Mixed train service, daily except Sunday, connecting at Earlton Jct. with main line trains.

Charlton Branch

Mixed train service, daily except Sunday, connecting at Englehart with main line trains.

Iroquois Falls Branch

Passenger train connections daily with all main line trains at Porquis Jct.

Porcupine Branch

Four passenger trains daily except Sunday, each way between Timmins and Porquis Jct. making connection with all main line trains, and one passenger train each way Sundays, making connection at Porquis Jct. with trains Nos. 1 and 2 "The Continental Limited".

Passenger traffic has been good throughout the year, particularly during the summer, when we enjoyed a large volume of tourist traffic to Temagami and other points, as well as handling a large number of special parties and special trains.

On August 27th, we started operating Cafe-Parlor cars on trains Nos. 46 and 47, between North Bay and Timmins. This involved the organization of a department to handle these cars, which was successfully accomplished, and we have heard nothing but praise for this Cafe-Parlor car service.

A review of the past year shows it to be one of the most successful in the history of the T. & N. O. Railway and we have every reason to look forward with confidence to 1924.

A. J. Parr,
General Freight and Passenger Agent.

PURCHASING AND STORES DEPARTMENT

During the fiscal year just closed, we have endeavoured to serve all departments in the interests of the Commission. In the early part of the year, we were still feeling the effect of the fires during October, 1922, as the many demands for replacement were to be met as promptly and as economically as possible, and the movement of material properly registered in accordance with accounting requirements. Later in the year, Mr. W. A. Graham, former purchasing agent and storekeeper, resigned his position, after many years service, which necessitated a general change in staff positions. These factors, in addition to the general operations, throughout the year as covered by figures in the attached statement, have all tended toward making the year a test for the staff.

On account of a betterment programme for our main line, we had considerable rail and track materials turned over to us for attention, toward securing with our facilities, as much serviceable rail as possible for general work contemplated by the Commission, in addition to providing for requirements during the season. After a reclaiming process, we disposed of the scrap to good advantage on the basis of quotations received from parties interested in purchase. An inventory of materials on hand on all sections of the line was carried out with good results, and a follow-up by all concerned tended to secure the desired service without a surplus of materials at any point on the system. There was a general clean-up of scrap materials, and we have reason to believe that the handling has been to our advantage.

During the year, in addition to operating under contracts affecting coal, lubricating and illuminating oils, stationery, wheels and castings, etc., etc., we have endeavoured to give every opportunity to the many firms in the Province seeking business offering by the railway—placing orders with the interests of the railway in view, and I feel that the commercial relationship is of a desirable nature.

We have no hesitation in saying that the Commission, through means of carefully conducted inventories, followed by efforts to secure proper records, have a knowledge of material status that can be considered satisfactory, and throughout these efforts, the department has not failed to give its best.

All railways on the continent are devoting more time and interest to the handling of their stores organization, and while there is large responsibility upon the stores department, the requisitioners are being urged to supervise the materials supplied with increasing care, and to keep to the minimum of outlay, consistent with service. There has been no appreciable decline in prices, and in many cases the tendency has been upward, which increases the necessity for closer supervision.

A factor which will always assist the purchasing department is anticipation of requirements on the part of officials so as to enable the placing of enquiries and purchasing to the best advantage, and we hope that this feature will continue to receive the attention it merits.

We have recently made some changes in our accounting practice which will give us increased knowledge as regards our material, and will serve to give satisfaction with efforts of all concerned in this regard.

I cannot speak too highly of the interest shown by the staff and increasing efficiency on their part in discharge of the duties assigned to each.

Respectfully submitted,

G. B. Alford,
Purchasing Agent and Storekeeper.

STATEMENT OF PURCHASES AND ISSUES, FISCAL YEAR, 1922-1923

Stock	1922 Purchases	1922 Issues	1923 Purchases	1923 Issues
Shop	$439,028 11	$493,195 61	$816,799 14	$680,553 72
Soft Coal	486,486 02	750,252 21	1,112,913 30	966,183 97
Hard Coal	5,875 86	17,216 07	32,845 54	18,414 84
Oil and Waste	27,118 83	30,098 26	34,134 83	33,487 51
Stationery	25,675 63	29,989 71	39,473 32	38,393 53
Rail	318,459 13	350,177 22	465,713 00	444,039 65
Tie	112,462 95	119,690 27	143,477 18	107,620 84
Ice	10,812 18	7,870 58	9,808 66	10,696 94
	$1,425,918 71	$1,798,489 93	$2,655,164 97	$2,299,391 00

Total Purchases	$1,425,918 71	.....	$2,655,164 97
Total Issues	1,798,489 93	.....	2,299,391 00
	$3,224,408 64		$4,954,555 97

"Report on Mining Industry along T. and N. O. Railway is being published separately."

FINANCIAL STATEMENTS

GENERAL BALANCE SHEET, OCTOBER 31st, 1923

Assets

Property Owned:		
Cost of road as of Oct. 31, 1922	$19,496,265 05	
Cost of road for year ended Oct. 31, 1923	228,268 99	
		$19,724,534 04
Cost of equipment as of Oct. 31, 1922	$3,661,859 90	
Cost of equipment for year ended Oct. 31, 1923	206,463 49	
		3,868,323 39
James Bay Extension		3,270,358 44
Investment Nipissing Central Railway		954,073 21
Working Assets:		
Cash	$1,132,740 85	
Cash—Land Agent	1,153 30	
Accounts collectible	279,615 61	
Balance due on townsite sales	17,093 24	
Agents and conductors	11,769 49	
Material and supplies	998,239 78	
Ballast pit operations	47,984 51	
Other assets	2,000 00	
		2,490,596 78
Deferred Debit Items:		
Treasurer's advance	$250 00	
Insurance paid in advance	949 99	
Surveys	33,157 41	
Accounts in suspense	19,638 28	
		53,995 68
		$30,361,881 54

Liabilities

Provincial Loan Account		$28,074,827 42
Working Liabilities:		
Audited accounts	$781,928 48	
Audited payrolls	10,189 38	
Traffic balance—Freight	12,242 28	
Traffic balance—Tickets	3,634 87	
Traffic balance—Car service	29,327 77	
		837,322 78
Deferred Credit Items:		
Accrued depreciation	$577,635 08	
Deposits on sidings	3,956 75	
Deposits on contracts	1,649 10	
War tax	1,712 68	
Tie operations	16,958 30	
Accounts in suspense	99,515 13	
		701,427 04
Free Surplus:		
Profit and Loss—Balance		748,304 30
		$30,361,881 54

Profit and Loss

Profit or loss on retired road and equipment	$25,739 35
Temiskaming Testing Laboratories	323 65
Uncollectible accounts	134 75
Paid Treasurer of Ontario	750,000 00
Balance carried forward	748,304 30
	$1,524,502 05

By balance, October 31, 1922	$669,001 99
Result operation for year ended October 31, 1923	836,848 93
Adjustment material accounts to inventory	16,167 03
Townsites	774 51
Unclaimed wages	1,649 70
Unclaimed vouchers	59 89
	$1,524,502 05

STATEMENT OF EXPENDITURES ON CONSTRUCTION

Fiscal Year Ended October 31st, 1923

Main Line, North Bay to Cochrane and Branches

	ROAD			
2.	Land for transportation purposes	$218 87		
3.	Grading	9,630 29		
6.	Bridges, trestles and culverts	46		
8.	Ties	1,122 46	Cr.	
9.	Rails	10,755 98		
10.	Other track material	50,204 89		
11.	Ballast	578 51	Cr.	
12.	Track laying and surfacing	1,437 02		
13.	Right-of-way fences	1,625 82		
14.	Snow and sand fences and snowsheds	851 1		
15.	Crossings and signs	8,039 91		
16.	Station and office buildings	113,013 97		
17.	Roadway buildings	14,870 26		
18.	Water stations	3,918 78		
19.	Fuel stations	125 64		
20.	Shops and engine houses	1,052 96		
26.	Telegraph and telephone lines	1,388 06		
29.	Power plant buildings	264 87		
31.	Power transmission systems	4,888 17		
32.	Power distribution systems	253 47		
37.	Roadway machines	294 51		
44.	Shop machinery	7,005 25		
45.	Power plant machinery	129 57		
				$228,268 99
	EQUIPMENT			
51.	Steam locomotives	$52,507 50		
53.	Freight tra n cars	146,582 1		
54.	Passenger train cars	256 92		
57.	Work equipment	7,117 06		
				205,463 49
	JAMES BAY EXTENSION			
1.	Engineering	$143,800 48		
2.	Land for transportation purposes	2,519 38		
3.	Grading	481,215 52		
6.	Bridges, trestles and culverts	536,000 13		
8.	Ties	57,477 11		
9.	Rails	203,110 93		
10.	Other track material	42,509 88		
11.	Ballast	144,674 42		
12.	Track laying and surfacing	56,160 05		
13.	Right-of-way fences	2,906 25		
15.	Crossings and signs	1,721 02		
16.	Station and office buildings	42 34		
18.	Water stations	3,660 25		
26.	Telegraph and telephone lines	23,046 79		
47.	Unapplied construction material and supplies	150,251 53		
	Amount retained from contractors	13,942 00	Cr.	
				1,835,154 08
				$2,269,386 56

DETAILS OF CHARGES TO CONSTRUCTION

	Road	
James Bay Extension	$1,835,154 08	
Additional land purchased	214 57	
Increased weight of rail	18,132 71	
Additional track fastenings	48,114 59	
Additional bumping posts	1,730 22	
Widening embankments, main line	15,283 93	
Raising tracks through Dane yard	10,277 25	
Road crossings, main line	5,205 61	
Road crossings, branch lines	2,834 30	
Right-of-way fences, main line	1,625 82	
Snow fences, main line and branches	2,776 18	
Abandoned main line, Doherty—retired	29,969 74	Cr.
Extension No. 2, yard siding, North Bay Junction	2,148 00	
Extension coal chute siding, Temagami	758 34	Cr.
Transfer siding, M.P. 109¾	4,065 70	
Siding, M.P. 121½	204 00	Cr.
Siding, M.P. 131.5	1,062 04	Cr.
Siding, M.P. 132.9	498 04	Cr.
Sidings, Charlton	1,493 44	Cr.
Re-arrangement sidings, Ramore	2,949 07	Cr.
Siding, Kelso	1,090 68	Cr.
Siding, Drinkwater pit	184 20	Cr.
Extension freight shed siding, Iroquois Falls	1,960 98	
Private sidings installed and removed	2,010 37	
Completion filling trestle, M.P. 6¼, Charlton Branch	3,380 75	
Track scales, North Bay	62 25	Cr
Shelter for rail sawing machine, North Bay	117 15	
Extension to general office building, North Bay	44,358 79	
Improvements to restaurant, Temagami	4,580 76	
Sewer and septic tank, station and restaurant, Temagami	1,484 43	
New combined stations and agent's dwelling, North Cobalt	6,751 02	
Freight shed, North Cobalt	1,926 82	
New station, Haileybury	20,134 90	
Freight shed, Haileybury	3,986 01	
Agent's dwelling, Haileybury	4,228 58	
Section foreman's dwelling, Haileybury	614 00	
Section tool house, Haileybury	32 14	
Dwelling house (Routley property), Haileybury—retired	750 00	Cr.
Improvements heating system, station, New Liskeard	327 00	
New freight shed, New Liskeard	8,167 95	
Shelter station, Maybrook	129 65	
Combined station and agent's dwelling, Thornloe	5,965 40	
Freight shed, Thornloe	691 92	
Section foreman's dwelling, Thornloe	2,077 94	
Section foreman's dwelling, Kenabeek	861 54	
Metal clad tool houses, Heaslip and Thornloe	308 30	
Section foreman's dwelling, Heaslip	2,221 85	
Shelter station, Heaslip	508 60	
Station, Heaslip—retired	5,914 08	Cr.
Freight shed, Heaslip—retired	950 00	Cr.
Section bunk house, Heaslip—retired	519 46	Cr.
Coaling plant, Englehart	826 35	Cr.
Pump for water station, Englehart	2,379 51	
Lockers in roundhouse, Englehart	28 07	
Shelter for steam crane, Englehart	1,024 89	
Extension living apartments, Englehart greenhouse	3,725 74	
Shelter station, Dack	119 70	
Station and freight shed, Charlton	1,570 01	
Section foreman's dwelling, Charlton	1,597 43	
Shelter station, Mindoka	400 88	
Addition to freight shed, Swastika	1,534 11	
Combined station and freight shed, Ramore	9,616 05	
Unloading platform, Matheson	242 88	
Breaker bars, coaling plant, Porquis Junction	382 01	
Wooden housing, water tank, Porquis Junction	1,539 27	
Motor generator plant for battery charging, Timmins	647 91	
Basement under freight shed office and installation heating and plumbing, Cochrane	2,219 37	

Wells at Heaslip, Krugerdorf and Ramore	1,826 50	
Sectionmen's bunk houses, Jocko, Swastika, Kenogami Lake and Sesinkinika	654 77	
Section bunk houses, Thornloe, Heaslip, Charlton and Kenabeek	3,140 28	
Additional shop machinery, North Bay	7,005 25	
Additional section equipment	294 51	
Extension No. 3 telegraph circuit, Cobalt to New Liskeard	315 03	
Copper telephone circuit, Haileybury to New Liskeard	92 01	
Replacing iron telephone circuit with No. 9 copper and arranging phantom circuit, Cobalt to Haileybury	516 46	
Telegraph line, station to town office, New Liskeard	504 09	
Transmission line, Iroquois Falls to Porquis Junction	4,888 17	
		$2,063,423 07

EQUIPMENT

Locomotives	$11,342 67 Cr.	
Locomotives, betterments	63,850 17	
Freight cars	145,356 70	
Freight cars, betterments	14,291 91	
Freight cars, retired	12,185 50 Cr.	
Conductors' vans	881 10 Cr.	
Passenger cars, betterments	256 92	
Work equipment, betterments	297 35	
Work equipment, retired	2,213 08 Cr.	
Work equipment, gas transport car	2,668 75	
Car "Abitibi"	6,360 02	
Steel snow plows	4 02	
		206,463 49
		$2,269,886 56

COMPARATIVE STATEMENT OF EARNINGS, EXPENDITURES AND RESULT OF OPERATION, NOVEMBER 1st, 1921, TO OCTOBER 31st, 1923

Revenue	Nov. 1st, 1922, to Oct. 31st, 1923 $ c.	Nov. 1st, 1921, to Oct. 31st, 1922 $ c.
TRANSPORTATION		
101. Freight	3,431,621 04	2,779,673 11
102. Passenger	1,273,807 69	1,097,394 03
103. Excess baggage	10,336 62	10,008 07
105. Parlor and chair car	559 75	.....
106. Mail	50,359 71	51,623 73
107. Express	174,134 52	158,765 86
109. Milk	667 88	578 65
110. Switching	29,119 03	25,050 86
111. Special service train	2,131 95	2,178 25
Total	4,972,738 19	4,125,272 56
INCIDENTAL		
131. Dining and buffet	7,650 20	.....
133. Station, train and boat privileges	13,268 68	13,905 92
135. Storage, freight	2,217 76	2,458 79
136. Storage, baggage	925 00	654 15
137. Demurrage	29,596 50	18,244 00
138. Telegraph and telephone	139,476 28	121,233 70
142. Rents of buildings and other property	15,267 05	14,681 65
143. Miscellaneous	22,367 65	26,313 91
Total	230,769 12	197,492 12
JOINT FACILITY		
152. Joint facility—Dr	4,393 29	4,174 13
Total	4,393 29	4,174 13
TOTAL REVENUE	5,199,114 02	4,318,590 55

Expenditures		
Maintenance of way and structures	865,320 68	718,761 15
Maintenance of equipment	866,557 45	648,892 08
Traffic	23,267 14	32,322 86
Transportation	2,173,858 68	1,782,728 79
Miscellaneous operations	71,165 38	59,811 64
General	178,876 33	198,600 12
Transportation for investment—Cr	10,406 37	12,069 39
Total operating expenses	4,168,639 29	3,429,047 25
BALANCE	1,030,474 73	889,543 30
Other Income		
Ore royalties	Dr. 2,280 05	Dr. 647 38
Hire of freight cars	Dr. 277,067 83	Dr. 226,094 39
Rent, locomotives	6,265 86	3,512 67
Rent, passenger train cars	14,449 49	852 88
Rent, work equipment	6,265 04	3,533 34
Joint facility rent income	22,821 82	23,515 21
Joint facility rents	Dr. 6,016 50	Dr. 1,903 80
Income from lease of road	10,547 78	10,578 03
Interest and exchange	30,035 57	8,198 45
Miscellaneous income	1,353 02	1,587 72
Uncollectible revenue	.....	Dr. 170 80
Total	Dr. 193,625 80	Dr. 177,038 07
NET RESULT	836,848 93	712,505 23

Maintenance of Way and Structures

		Nov. 1st, 1922, to Oct. 31st, 1923 $ c.	Nov. 1st, 1921, to Oct. 31st, 1922 $ c.
201.	Superintendence	26,669 65	28,391 99
202.	Roadway maintenance	70,511 83	69,397 13
208.	Bridges, trestles and culverts	642 56	28,726 09
212.	Ties	110,817 75	124,525 53
214.	Rails	136,566 62	19,596 97
216.	Other track material	56,778 24	34,696 59
218.	Ballast	20,130 16	6,048 28
220.	Track laying and surfacing	244,387 10	191,358 67
221.	Right-of-way fences	26,058 87	3,034 94
223.	Snow and sand fences and snowsheds	8 40	.....
225.	Crossings and signs	3,213 23	3,429 28
227.	Station and office buildings	41,084 55	45,140 88
229.	Roadway buildings	7,205 00	5,672 18
231.	Water stations	13,911 54	21,765 33
233.	Fuel stations	3,360 72	42,132 81
235.	Shops and engine houses	21,647 48	13,509 91
247.	Telegraph and telephone lines	6,652 24	7,958 02
249.	Signals and interlockers	11 78	51 06
257.	Power transmission systems	18 34	.....
259.	Power distribution systems	110 56	174 55
261.	Power line poles and fixtures	31 99	.....
265.	Miscellaneous structures	6 28	13 45
269.	Roadway machines	6,042 79	5,936 56
271.	Small tools and supplies	12,716 27	10,064 19
272.	Removing snow, ice and sand	67,977 40	80,316 99
274.	Injuries to persons	3,937 65	4,593 86
275.	Insurance	3,963 54	3,258 96
276.	Stationery and printing	1,671 09	896 92
277.	Other expenses	682 96	181 20
278.	Maintaining joint tracks, yards and other facilities—Dr.	1,873 33	1,125 00
279.	Maintaining joint tracks, yards and other facilities—Cr.	23,369 24	33,236 19
	Total	865,320 68	718,761 15

Maintenance of Equipment

		Nov. 1st, 1922, to Oct. 31st, 1923	Nov. 1st, 1921, to Oct. 31st, 1922
		$ c.	$ c.
301.	Superintendence	24,793 08	24,541 31
302.	Shop machinery	6,694 25	4,999 78
304.	Power plant machinery	2,368 43	2,598 53
308.	Steam locomotives, repairs	322,645 42	288,815 63
309.	Steam locomotives, depreciation	34,311 05	34,329 85
310.	Steam locomotives, retirements	45,442 27	.....
314.	Freight-train cars, repairs	209,309 01	134,197 64
315.	Freight-train cars, depreciation	17,336 88	16,775 76
316.	Freight-train cars, retirements	5,312 22	786 75
317.	Passenger-train cars, repairs	134,918 33	87,862 44
318.	Passenger-train cars, depreciation	15,035 64	15,198 60
319.	Passenger-train cars, retirements	.....	2,508 34
326.	Work equipment, repairs	39,905 73	27,861 83
327.	Work equipment, depreciation	6,553 68	6,535 32
328.	Work equipment retirements	2,744 52	.....
332.	Injuries to persons	2,064 98	2,065 87
333.	Insurance	7,603 59	7,275 19
334.	Stationery and printing	2,207 23	1,949 57
335.	Other expenses	609 17	.....
336.	Maintaining joint equipment at terminals—Dr.	98 40	.....
337.	Maintaining joint equipment at terminals—Cr.	13,396 43	9,410 33
	Total	866,557 45	648,892 08

Traffic

351.	Superintendence	12,793 76	13,307 62
352.	Outside agencies	3,036 82	2,066 16
353.	Advertising	3,084 64	11,147 40
354.	Traffic associations	1,141 89	1,293 80
356.	Industrial and immigration bureaus	10 00	10 00
358.	Stationery and printing	3,200 03	4,497 88
	Total	23,267 14	32,322 86

Transportation

		Nov. 1st, 1922, to Oct. 31st, 1923	Nov. 1st, 1921, to Oct 31st, 1922
		$ c.	$ c.
371.	Superintendence	30,030 74	25,491 16
372.	Dispatching trains	23,051 79	23,144 25
373.	Station employees	307,755 74	284,669 07
374.	Weighing, inspection and demurrage bureaus	1,057 58	1,114 62
376.	Station supplies and expenses	44,525 34	49,849 01
377.	Yardmasters and yard clerks	48,459 77	40,186 89
378.	Yard conductors and brakemen	71,835 38	56,683 93
379.	Yard switch and signal tenders	3,007 10	2,990 07
380.	Yard enginemen	49,015 57	39,740 21
382.	Fuel for yard locomotives	91,543 74	79,603 84
385.	Water for yard locomotives	1,487 18	1,121 48
386.	Lubricants for yard locomotives	699 62	786 56
387.	Other supplies for yard locomotives	532 47	413 25
388.	Engine house expenses, yard	25,742 89	27,243 72
389.	Yard supplies and expenses	1,783 89	1,324 25
390.	Operating joint yards and terminals—Dr	4,993 80	520 00
391.	Operating joint yards and terminals—Cr	145,881 05	136,897 37
392.	Train enginemen	271,255 25	216,937 20
394.	Fuel for train locomotives	751,163 71	565,629 22
397.	Water for train locomotives	25,020 14	24,063 35
398.	Lubricants for train locomotives	7,398 22	6,619 49
399.	Other supplies for train locomotives	6,660 41	4,991 26
400.	Engine house expenses, train	76,741 44	78,985 24
401.	Trainmen	305,877 05	246,497 66
402.	Train supplies and expenses	74,927 38	76,757 79
405.	Crossing protection	441 14	207 94
410.	Stationery and printing	27,023 31	21,420 08
411.	Other expenses	281 82	154 80
413.	Operating joint tracks and facilities—Cr	300 00	300 00
414.	Insurance	4,516 43	4,213 95
415.	Clearing wrecks	37,424 46	12,646 93
416.	Damage to property	745 00	174 91
417.	Damage to live stock on right-of-way	1,197 24	369 12
418.	Loss and damage, freight	12,945 60	17,937 66
419.	Loss and damage, baggage	73 07	73 09
420.	Injuries to persons	10,910 45	6,454 25
	Total	2,173,858 68	1,782,728 79

Miscellaneous Operations

		Nov. 1st, 1922, to Oct. 31st, 1923	Nov 1st, 1921, to Oct. 31st, 1922
		$ c.	$ c.
441.	Dining and buffet service	9,167 27	.....
447.	Commercial telegraph, maintenance	5,620 91	6,098 17
448.	Commercial telegraph, operation	24,857 52	22,292 73
449.	Commerical telephone, maintenance	7,546 86	8,896 18
450.	Commercial telephone, operation	23,972 82	22,524 56
	Total	71,165 38	59,811 64

General

451.	Salaries and expenses of general officers	42,565 70	40,319 42
452.	Salaries and expenses of clerks and attendants	93,728 08	91,528 63
453.	General office supplies and expenses	3,771 65	2,809 53
454.	Law expenses	5,079 23	5,046 60
455	Insurance	119 66	337 78
457	Pensions	25,775 73	50,000 00
458.	Stationery and printing	6,761 20	6,489 46
460.	Other expenses	1,568 46	2,606 14
462.	General joint facilities—Cr	493 38	537 44
	Total	178,876 33	198,600 12

COMPARATIVE STATEMENT SHOWING EARNINGS AND EXPENDITURES IN OPERATION PERIOD 1905 TO 1923, INCLUSIVE

Year	Freight	Passenger	Other Revenue	Maintenance of Way and Structures	Maintenance of Equipment	Traffic Expenses	Transportation Expenses	Miscellaneous Operations	General Expenses	Transportation for Investment—Cr.	Total Revenue	Total Expenditure
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1905..	121,530 46	108,681 76	23,508 33	25,072 89	12,533 68	.....	88,342 41	.....	13,823 52	.....	253,720 55	139,772 50
1906..	230,552 63	254,759 33	58,706 89	77,265 87	46,382 65	.....	215,256 08	.....	23,194 61	.....	544,018 85	362,099 21
1907..	390,894 29	388,343 03	74,282 69	112,395 22	88,016 79	.....	412,160 52	.....	32,839 76	.....	853,520 01	645,412 29
1908..	471,203 41	366,504 53	135,357 67	125,563 43	119,563 01	12,499 96	405,907 58	.....	24,863 45	.....	973,065 61	688,397 43
1909..	756,141 66	483,110 89	121,972 33	191,170 18	107,078 96	9,789 99	436,768 41	.....	49,989 34	.....	1,361,224 88	794,796 88
1910..	852,886 46	606,967 91	131,997 65	380,314 75	137,340 46	14,920 04	556,740 45	.....	76,045 66	.....	1,591,852 02	1,165,361 36
1911..	974,678 33	653,063 01	153,223 49	353,918 92	164,145 69	17,705 31	567,316 97	.....	78,911 74	.....	1,780,964 83	1,181,998 63
1912..	929,464 66	599,681 73	178,303 68	346,964 01	249,683 22	17,461 22	676,963 33	.....	93,625 91	.....	1,707,450 07	1,384,697 69
1913..	906,476 16	576,049 37	173,629 32	430,820 04	242,633 93	16,857 36	680,480 08	.....	106,758 60	.....	1,656,154 85	1,477,550 01
1914..	952,090 35	544,820 08	173,988 44	408,046 15	284,935 87	18,872 65	651,687 20	.....	105,032 36	.....	1,670,898 87	1,468,574 23
1915..	925,735 37	482,349 80	143,466 60	325,865 86	262,654 51	18,135 13	625,911 92	.....	95,929 49	.....	1,551,551 77	1,328,496 91
1916..	1,320,569 33	624,808 12	192,744 50	349,024 48	248,702 04	22,465 69	842,058 75	42,562 89	91,317 74	1,954 13	2,138,121 95	1,594,177 46
1917..	1,459,459 93	655,127 58	217,318 28	419,266 84	305,286 86	17,676 10	985,452 19	47,824 69	107,255 05	1,465 44	2,331,905 79	1,881,296 29
1918..	1,937,054 80	647,162 91	228,092 91	462,526 51	485,057 18	19,376 52	1,260,079 27	52,651 90	111,097 85	586 63	2,812,310 62	2,390,202 60
1919..	2,036,274 38	853,363 52	247,114 86	789,431 65	594,401 64	19,504 73	1,499,314 90	51,167 33	123,460 28	1,150 51	3,136,752 76	3,076,130 02
1920..	2,728,092 92	1,021,079 95	339,371 14	813,763 46	770,627 57	21,666 17	1,887,417 25	61,927 43	133,328 85	731 45	4,088,544 01	3,687,999 28
1921..	3,047,925 57	1,223,387 14	409,302 71	960,483 34	735,799 62	25,120 34	2,233,312 73	58,874 00	152,418 44	586 09	4,680,615 42	4,165,422 38
1922..	2,779,673 11	1,097,394 03	441,523 41	718,761 15	648,892 08	32,322 86	1,782,728 79	59,811 64	198,600 12	12,069 39	4,318,590 55	3,429,047 25
1923..	3,431,621 04	1,273,807 69	493,685 29	865,320 68	866,557 45	23,267 14	2,173,858 68	71,165 38	178,876 33	10,406 37	5,199,114 02	4,168,639 29
	26,252,324 86	12,460,462 38	3,937,590 19	8,155,975 43	6,370,293 21	307,641 21	17,981,757 51	445,985 26	1,797,369 10	28,950 01	42,650,377 43	35,030,071 71

Summary

Freight revenue	$26,252,324 86	Maintenance of way and structures	$8,155,975 43
Passenger revenue	12,460,462 38	Maintenance of equipment	6,370,293 21
Other revenue	3,937,590 19	Traffic expenses	307,641 21
		Transportation expenses	17,981,757 51
		Miscellaneous operations	445,985 26
		General expenses	1,797,369 10
		Transportation for investment, Cr.	28,950 01
	$42,650,377 43		$35,030,071 71

Total revenue from transportation	$42,650,377 43	
Total expenditures	35,030,071 71	
	$7,620,305 72	
Other income, etc.	133,756 26	Dr.
	$7,486,549 46	
Paid Treasurer of Ontario	6,738,245 16	
Balance profit and loss	$748,304 30	

TRAFFIC AND MILEAGE STATISTICS

Passenger Traffic

Total passengers carried earning revenue	708,144
Number of passengers carried one mile	46,426,913
Number of passengers carried one mile per mile of road	141,330
Average distance carried, miles	65.56
Total passenger revenue	$1,273,807 69
Average amount received from each passenger	$1 80
Average receipts per passenger per mile (cents)	.02.74
Total passenger train service revenue	$1,509,866 17
Passenger service train revenue per mile of road	4,596.24
Passenger service train revenue per train mile	2.34

Freight Traffic

Number of tons carried earning revenue	1,550,651
Number of tons carried earning revenue one mile	269,303,131
Number of tons carried earning revenue one mile per mile of road	819,796
Average distance haul of one ton, miles	173.7
Total freight revenue	$3,431,621 04
Average amount received for each ton	2.21
Average amount received per ton per mile (cents)	.01.27
Freight revenue per mile of road	10,446 33
Freight revenue per train mile	4 26

Total Traffic

Operating revenue	$5,199,114 02
Operating revenue per mile of road	15,826 83
Operating revenue per train mile	3 74
Operating expenses	4,168,639 29
Operating expenses per mile of road	12,689 92
Operating expenses per train mile	3 00
Net operating revenue	1,030,474 73
Net operating revenue per mile of road	3,136 91

Car Mileage

Average number of passengers carried one mile per car mile	10.8
Average number of passengers carried one mile per train mile	72.
Average number of passenger cars per train mile	6.7
Mileage of passenger cars	4,314,083
Mileage of loaded freight cars	12,229,144
Mileage of empty freight cars	7,634,760
Average number of freight cars per train mile	25.6
Average number of loaded freight cars per train mile	15.2
Average number of empty freight cars per train mile	9.5
Average number of tons freight per train mile	334.6
Average number of tons freight per loaded car mile	22.
Average mileage operated during the year	328.5

Train Mileage

Mileage of revenue passenger trains	583,343
Mileage of revenue mixed trains	61,392
Mileage of revenue freight trains	743,410
Mileage of revenue special trains	630
Total revenue train mileage	1 388,775

FREIGHT TRAFFIC

Company's Material Excluded—November 1st, 1922, to October 31st, 1923

Commodity	Whole Tons
Products of Agriculture—	
Wheat	3,049
Corn	66
Oats	5,736
Barley	733
Other grain	735
Flour	10,570
Other mill products	5,300
Hay and straw	17,329
Apples (fresh)	1,472
Other fruit (fresh)	2,260
Potatoes	4,831
Other fresh vegetables	2,896
Other agricultural products	748
Products of Animals—	
Horses	4,526
Cattle and calves	40,559
Sheep	75
Hogs	4,452
Dressed meats (fresh)	4,634
Dressed meats (cured or salted)	144
Other packing house products	12
Poultry	603
Eggs	1,410
Butter and cheese	1,903
Wool	75
Hides and leather	557
Other animal products	74
Products of Mines—	
Anthracite coal	15,745
Bituminous coal	345,400
Coke	1,618
Other ores and concentrates	6,169
Clay, gravel, sand, stone (crushed)	26,350
Slate, dimension, or block stone	123
Asphaltum	60
Salt	852
Other mine products	3,014
Products of Forest—	
Logs, posts, poles, cordwood	54,727
Ties	654
Pulpwood	453,007
Lumber, timber, box shooks, staves, heading	125,801
Other forest products	124
Manufactures and miscellaneous—	
Refined petroleum and its products	10,620
Sugar	2,390
Iron, pig and bloom	210
Rails and fastenings	1,853
Bar and sheet iron, structural iron and iron pipe	9,318
Castings, machinery and boilers	7,443
Cement	13,384
Brick and artificial stone	11,023
Lime and plaster	5,241
Sewer pipe and drain tile	310
Agricultural implements and vehicles other than autos	761
Automobiles and auto trucks	926
Household goods	2,419
Furniture	158
Liquor beverages	1,561
Fertilizers, all kinds	60
Paper, printed matter, books	149,371
Woodpulp	72,362
Fish (fresh, cured, etc.)	2,180
Canned goods (all canned food products other than meat)	1,307
Other manufacturers and miscellaneous	39,974
Merchandise	69,387
	1,559,651

STATISTICS

Comparative Passenger and Freight Traffic Statement

		Passengers	Revenue $ c.
Number of passengers carried during year	1905	86,648	108,681 76
" " " "	1906	359,861	254,759 33
" " " "	1907	518,678	388,343 03
" " " "	1908	479,005	366,504 53
" " " "	1909	580,748	483,110 89
" " " "	1910	670,913	606,967 91
" " " "	1911	479,102	653,063 01
" " " "	1912	497,452	599,681 73
" " " "	1913	508,055	576,049 37
" " " "	1914	535,869	544,820 08
" " " "	1915	480,995	482,349 80
" " " "	1916	485,759	624,808 12
" " " "	1917	499,759	655,127 58
" " " "	1918	436,984	647,162 91
" " " "	1919	525,714	853,363 52
" " " "	1920	609,879	1,021,079 95
" " " "	1921	685,928	1,223,387 14
" " " "	1922	633,491	1,097,394 03
" " " "	1923	708,144	1,273,807 69
		9,782,984	12,460,462 38

		Tons	Revenue
Number of tons of freight carried during year	1905	99,192	121,530 46
" " " "	1906	273,749	230,552 63
" " " "	1907	393,589	390,894 29
" " " "	1908	484,444	471,203 41
" " " "	1909	498,645	756,141 66
" " " "	1910	624,820	852,886 46
" " " "	1911	564,120	974,678 33
" " " "	1912	562,734	929,464 66
" " " "	1913	674,942	906,476 16
" " " "	1914	742,366	952,090 35
" " " "	1915	676,938	925,735 37
" " " "	1916	922,618	1,320,569 33
" " " "	1917	960,714	1,459,459 93
" " " "	1918	1,233,510	1,937,054 80
" " " "	1919	1,068,775	2,036,274 38
" " " "	1920	1,361,185	2,728,092 92
" " " "	1921	1,298,400	3,047,925 57
" " " "	1922	1,185,453	2,779,673 11
" " " "	1923	1,550,651	3,431,621 04
		15,176,845	26,252,324 86

TONNAGE

Statement of Tons One Mile—November 1st, 1922, to October 31st, 1923

	Northbound		Southbound		Total	
Month—	Tons	Tons One Mile	Tons	Tons One Mile	Tons	Tons One Mile
November, 1922	49,614	8,975,790	69,232	15,488,869	118,846	24,464,659
December, "	48,862	5,897,185	73,198	15,009,007	122,060	20,906,192
January, 1923	54,735	7,721,127	82,033	15,394,867	136,768	23,115,994
February, "	55,990	7,466,253	75,454	13,923,587	131,444	21,389,840
March, "	56,456	8,107,111	94,287	17,025,643	150,743	25,132,754
April, "	52,220	7,706,596	84,956	15,755,593	137,176	23,462,189
May, "	44,063	5,518,914	74,428	14,586,470	118,491	20,105,384
June, "	48,625	6,170,404	60,169	10,273,115	108,794	16,443,519
July, "	61,014	9,797,739	68,070	14,571,877	129,084	24,369,616
August, "	62,045	8,284,172	89,968	17,804,799	152,013	26,088,971
September, "	64,979	8,926,835	63,730	13,718,268	128,709	22,645,103
October, "	57,233	8,447,803	59,290	12,731,107	116,523	21,178,910
Total	655,836	93,019,929	894 815	176,283,202	1,550,651	269,303,131

PASSENGER TRAFFIC

Statement of Passengers, Revenue, Passengers One Mile and Passenger Revenue per Mile, from November 1st, 1922, to October 31st, 1923

Form of Ticket—	Passengers	Revenue $ c.	Passengers One Mile	Revenue per Passenger One Mile c.
Ordinary	632,897	1,113,666 88	40,134,590	.02.77
Commercial	44,893	89,518 45	3,472,191	.02.58
Excursion	20,483	61,780 97	2,409,567	.02.56
Militia	1,194	5,608 49	206,754	.02.71
Market	7,374	2,626 60	132,861	.01.98
Scholars	1,303	606 30	70,950	.00.85
	708,144	1,273,807 69	46,426,913	.02.74

NIPISSING CENTRAL RAILWAY COMPANY

Review of Fiscal Year 1923

Statistical data covering the year's operation show that the gross revenue in 1923 increased $5,471.06—equal to 6 per cent.—as compared with preceding year.

Operating expenditure in 1923 also increased by $23,196.81—equal to 27.6 per cent.—over 1922, due to extensive maintenance betterments and retirement of equipment. The net results for the year show a loss of $25,201.46.

The total number of passengers carried in 1923 was 957,936 as compared with 844,034 in 1922, an increase of 113,902—equal to 13.5 per cent.—with a corresponding increase in our mileage of 19,182 car mile.

Insurance against fire has been carried to the extent of $100,265.00 during the period.

There has been no change in operated track mileage during the year, and the buildings, rolling stock, and equipment have been fully maintained to the usual standard requirements of the road.

Early in June, public tenders were invited for an extension of the Nipissing Central Railway from Swastika to Larder Lake, approximately 25 miles of completed road-bed, and the contract was awarded to R. A. & I. M. Sinclair of Toronto, covering construction of right-of-way for ties and rails, track-laying and ballasting et al.

Grading for about 20 miles has been completed and it is confidently expected that the greater part of the rails will be laid during coming winter, and the extension fully completed for operation early in the fall of 1924. The line was located to fully serve the growing requirements of the Kirkland Lake mining industry, and to open up a territory which is daily increasing in importance, and second only to the Porcupine district in its potential mineral wealth

GEO. W. LEE,
President.

Comparative Statement of Earnings and Expenditures and Result of Operation—Fiscal Years 1923-1922

Revenue—	1923	1922
Revenue from transportation	$92,790 19	$88,111 42
Revenue other than transportation	2,807 00	2,014 71
	$95,597 19	$90,126 13
Expenditures	120,798 65	98,069 67
Loss	$25,201 46	$7,943 54

MISCELLANEOUS STATISTICS

	1923	1922
Passenger car hours	20,202	18,436
Passenger car miles	206,962	188,780
Total passengers carried	957,936	844,034
Average daily receipts	$254 22	$241 40
Average receipts per car hour	4 36	4 36
Average receipts per car mile	43	43
Earnings per passenger	09	09

Superintendent's Report

I beg to submit the following report on Maintenance of Way and Maintenance of Equipment and Operation for the fiscal year ending October 31st, 1923.

Mileage operated during the year was as follows:—

	Miles	Miles
Main Track—		
Owned and maintained by Company	4.92	
Leased from T. & N.O. Railway—Maintained by Company	5.28	
" " " " —Maintained by T. & N. O. Railway.	5.17	
Total main track		15.37
Spurs and Sidings—		
Sidings on that part of the line leased from T. &. N. O. Railway:		
Yard tracks and sidings	1.55	
Private sidings	1.73	
Sidings on that part of the line owned by N. C. Railway:		
Yard tracks and sidings	1.91	
Private sidings	0.11	
Total sidings		5.30
Total track		20.67

No additions were made to the equipment during the year.

A line is being constructed easterly from Swastika to serve the Kirkland Lake and Larder Lake Gold Areas, details of which are given in the Chief Engineer's report.

The equipment which has been kept in serviceable condition consists of eight electric motor passenger cars, one combination switching locomotive express car and snow-plow, one motor driven snow-plow and two freight cars.

Cars operated as follows:

Car leaves New Liskeard for Cobalt 6.45 a.m. and hourly thereafter until 10.45 p.m., the last car at 11.35 p.m., returning to car barns.

Car leaves Haileybury for New Liskeard 6.15 a.m. and hourly until 11.15 p.m.

Car leaves Haileybury for Cobalt 5.45 a.m., 6.15 a.m., 7.15 a.m., 7.45 a.m., 8.15 a.m., 9.15 a.m., 9.45 a.m., 10.15 a.m., 11.15 a.m., 11.45 a.m., 12.15 p.m., 1.15 p.m., 1.45 p.m., 2.15 p.m., 3.15 p.m., 3.45 p.m., 4.15 p.m., 5.15 p.m., 5.45 p.m., 6.15 p.m., 7.15 p.m., 7.45 p.m., 8.15 p.m., 9.15 p.m., 9.45 p.m., 10.15 p.m., 11.15 p.m., the last car at 11.45 p.m., returning to car barns.

Car leaves Haileybury for Kerr Lake at 7.45 a.m. and every two hours thereafter until 9.45 p.m.

Car leaves North Cobalt for New Liskeard 6.00 a.m., and every hour thereafter until 11.00 p.m.

Car leaves North Cobalt for Haileybury 5.30 a.m., 6.00 a.m., 7.00 a.m., 7.30 a.m., 8.00 a.m., 9.00 a.m., 9.30 a.m., 10.00 a.m., 11.00 a.m., 11.30 a.m., 12 noon, 1.00 p.m., 1.30 p.m., 2.00 p.m., 3.00 p.m., 3.30 p.m., 4.00 p.m., 5.00 p.m., 5.30 p.m., 6.00 p.m., 7.00 p.m., 7.30 p.m., 8.00 p.m., 9.00 p.m., 9.30 p.m., 10.00 p.m., 11.00 p.m., and 11.30 p.m.

Car leaves North Cobalt for Cobalt 5.00 a.m., 6.00 a.m., 6.30 a.m., 7.30 a.m., 8.00 a.m., 8.30 a.m., 9.30 a.m., 10.00 a.m., 10.30 a.m., 11.30 a.m., 12 noon, 12.30 p.m., 1.30 p.m., 2.00 p.m., 2.30 p.m., 3.30 p.m., 4.00 p.m., 4.30 p.m., 5.30 p.m., 6.00 p.m., 6.30 p.m., 7.30 p.m., 8.00 p.m., 8.30 p.m., 9.30 p.m., 10.00 p.m., 10.30 p.m. and 11.30 p.m.

Car leaves North Cobalt for Kerr Lake 5.30 a.m., 8.00 a.m. and every two hours thereafter until 10.00 p.m.

Car leaves Cobalt for New Liskeard 6.45 a.m. and hourly thereafter until 10.45 p.m.

Car leaves Cobalt for Haileybury 5.15 a.m., 6.45 a.m., 7.15 a.m., 7.45 a.m., 8.45 a.m., 9.15 a.m., 9.45 a.m., 10.45 a.m., 11.15 a.m., 11.45 a.m., 12.45 p.m., 1.15 p.m., 1.45 p.m., 2.45 p.m., 3.15 p.m., 3.45 p.m., 4.45 p.m., 5.15 p.m., 5.45 p.m., 6.45 p.m., 7.15 p.m., 7.45 p.m., 8.45 p.m., 9.15 p.m., 9.45 p.m., 10.45 p.m., 11.15 p.m., the last car at 11.45 p.m., returning to car barns.

Car leaves Cobalt for Kerr Lake 5.45 a.m., 6.35 a.m., 8.15 a.m., and every two hours thereafter until 10.15 p.m.

Car leaves Kerr Lake for Cobalt and Haileybury 6.15 a.m., 7.00 a.m., 8.45 a.m., and every two hours until 10.45 p.m.

Extra Car—Every Saturday night one car leaves car barns at 7.00 p.m., Haileybury, 7.15 p.m., returning to Cobalt ahead of the regular car from New Liskeard, reaching Cobalt 7.45 p.m. Car leaves Cobalt 10.45 p.m., Haileybury, 11.15 p.m. and returns to barn.

Sunday Services

Car leaves New Liskeard 7.45 a.m., and hourly thereafter as per daily time table.

Car leaves Haileybury for New Liskeard and Cobalt 7.15 a.m., and continues thereafter as per daily time table.

Car leaves Haileybury for Kerr Lake 9.45 a.m., and two hourly thereafter as per daily time table.

Car leaves Cobalt for Haileybury and New Liskeard 7.45 a.m. and hourly thereafter for New Liskeard. To Haileybury as per daily time table.

Car leaves Cobalt for Kerr Lake 8.15 a.m. and every two hours after as per daily time table.

Car leaves Kerr Lake 8.45 a.m. and every two thereafter as per daily time table.

Respectfully submitted,

W. A. Griffin,
Superintendent.

NIPISSING CENTRAL RAILWAY

General Balance Sheet, October 31st, 1923

Assets			Liabilities	
Property Owned:				
Cost of road, as of Oct. 31, 1922	$319,164 40		Capital stock	$159,000 00
Cost of road for year ended Oct. 31, 1923	1,853 37 Cr.		T. & N. O. Railway—Advance	718,589 40
		$317,311 03		
Cost of equipment, as of Oct. 31, 1922	$132,374 49		**Working Liabilities:**	
Cost of equipment for year ended Oct. 31, 1923	27,897 66 Cr.		Audited accounts	72,190 99
		104,476 83		
Kirkland Larder Lake Extension		265,968 18		
Working Assets:				
Cash	$114,953 69			
Accounts collectible	2,823 51			
Balances due on townsite sales	5,095 80			
Balance due from agents and conductors	517 58			
Material on hand	18,421 24			
		141,811 82		
Deferred Debit Items:				
Insurance paid in advance		48 07		
Other Assets:				
Franchise	$1 00			
Profit and loss balance	120,163 46			
		120,164 46		
		$949,780 39		$949,780 39

Profit and Loss

To balance, October 31, 1922	$93,960 19	By balance, October 31, 1923	$120,163 46
Townsites	198 51		
Loss on property sold	803 30		
Result operation for fiscal year ended Oct. 31, 1923—Deficit	25,201 46		
	$120,163 46		$120,163 46

COMPARATIVE STATEMENT OF EARNINGS AND EXPENDITURES AND RESULT OF OPERATION

November 1st, 1921, to October 31st, 1923

		Nov. 1st, 1922, to Oct. 31st, 1923	Nov. 1st, 1921, to Oct. 31st, 1922
	Receipts		
	I. Revenue from Transportation—	$ c.	$ c.
101.	Passenger revenue	86,610 51	78,912 29
102.	Baggage revenue	1,190 05	1,111 85
103.	Parlor, sleeping, dining and special car revenue	285 00	408 00
108.	Switching revenue	4,704 63	7,679 28
	Total	92,790 19	88,111 42
	II. Revenue from Other Railway Operations—		
110.	Station and car privileges	500 00	500 00
113.	Demurrage	1,689 00	480 00
117.	Rent of buildings and other property	561 00	1,033 71
119.	Miscellaneous	57 00	1 00
	Total	2,807 00	2,014 71
	Total Revenue	95,597 19	90,126 13
	Expenditures		
I.	Way and Structures	25,675 73	19,527 03
II.	Equipment	24,963 62	9,519 78
III.	Power	19,695 25	20,107 62
IV.	Conducting Transportation	30,982 23	29,541 42
V.	Traffic	.....	7 50
VI.	General and Miscellaneous	5,738 23	5,154 90
	Total operating expenses	107,055 06	83,858 25
	Balance	11,457 87 Dr.	6,267 88
	Deductions from Income—		
	Interest	5,976 04	6,142 22
	Rent—leased road	7,767 55	8,069 20
	Total	13,743 59	14,211 42
	Net result	25,201 46 Dr.	7,943 54 Dr.

Way and Structures

		Nov. 1st, 1922, to Oct. 31st, 1923	Nov. 1st, 1921, to Oct. 31st, 1922
		$ c.	$ c.
1.	Superintendence of way and structures	373 00	91 73
2.	Ballast	168 00	199 60
3.	Ties	3,211 70	2,078 00
4.	Rails	956 44	846 76
5.	Rail fastenings and joints	334 33	317 35
6.	Special work	118 02	177 17
8.	Track and roadway labor	7,744 51	7,034 57
9.	Miscellaneous track and roadway expenses	354 59	1,284 19
11.	Cleaning and sanding track	41 40	24 24
12.	Removal of snow and ice	3,232 26	3,548 97
15.	Bridges, trestles, and culverts	385 70	27 08
16.	Crossings, fences, and signs	379 62	386 09
18.	Telephone and telegraph lines	624 65	161 61
20.	Poles and fixtures	2,794 04	1,510 25
22.	Distribution system	4,064 06	1,311 58
23.	Miscellaneous electric line expenses	3 31	38 65
24.	Buildings, fixtures, and grounds	890 10	489 19
	Total	25,675 73	19,527 03

Equipment

29.	Superintendence of equipment	228 00	228 00
30.	Passenger and combination cars	5,467 92	3,767 16
32.	Service equipment	1,015 91	130 02
33.	Electric equipment of cars	3,540 07	4,988 46
34.	Locomotives	906 98	155 00
36.	Shop equipment	186 10	108 36
37.	Shop expenses	230 98	142 78
41.	Equipment retired	13,387 66	.....
		24,963 62	9,519 78

Power

		Nov. 1st, 1922, to Oct. 31st, 1923 $ c.	Nov. 1st, 1921, to Oct. 31st, 1922 $ c.
45.	Superintendence of power	738 00	610 50
46.	Power plant buildings, fixtures and grounds	.....	81 59
48.	Substation equipment	805 98	1,345 26
49.	Transmission system	36 36	445 32
57.	Substation employees	3,046 73	3,015 06
58.	Substation supplies and expenses	135 21	73 29
59.	Power purchased	14,932 97	14,536 60
		19,695 25	20,107 62

Conducting Transportation

63.	Superintendence of transportation	1,685 60	1,697 60
64.	Passenger conductors, motormen and trainmen	18,921 68	18,225 73
65.	Freight and express conductors, motormen and trainmen	3,877 78	3,890 07
66.	Miscellaneous car-service employees	.....	64 80
67.	Miscellaneous car-service expenses	2,522 31	1,375 85
68.	Station employees	62 84	1 18
69.	Station expenses	1,049 07	964 57
70.	Carhouse employees	2,128 27	2,574 63
71.	Carhouse expenses	625 98	673 88
72.	Operation of signal and interlocking apparatus	93 42	36 10
78.	Other transportation expenses	15 28	37 01
		30,982 23	29,541 42

Traffic

80.	Advertising	.....	7 50
	Total	.....	7 50

General and Miscellaneous

		Nov. 1st, 1922, to Oct. 31st, 1923 $ c.	Nov. 1st, 1921, to Oct. 31st, 1922 $ c.
83.	Salaries and expenses of general officers	.....	12 75
84.	Salaries and expenses of general office clerks	1,980 00	1,958 27
85.	General office supplies and expenses	152 01	144 15
86.	Law expenses	732 50	5 25
89.	Miscellaneous general expenses	25 07	.....
92.	Injuries and damages	386 88	151 47
93.	Insurance	582 80	503 33
94.	Stationery and printing	892 13	692 84
95.	Store expenses	12 59	1 59
97.	Rent of tracks and facilities	600 00	600 00
98.	Rent of equipment	374 25	1,085 25
	Total	5,738 23	5,154 90

STATEMENT SHOWING INVESTMENT IN ROAD AND EQUIPMENT

November 1st, 1922, to October 31st, 1923

Road		
Rails, fastenings and joints	$40 83 Cr.	
Poles and fixtures	202 70	
Stations, miscellaneous buildings and structures	2,015 24 Cr.	
		$1,853 37 Cr.
Extension to Kirkland and Larder Lake—		
Engineering and superintendence	$51,683 36	
Right of way	10,889 30	
Grading	124,498 47	
Ties	229 54	
Bridges, trestles and culverts	84,523 53	
Roadway buildings	52 97	
Unapplied construction material and supplies	16,888 43	
Amount retained from contractor	22,797 42 Cr.	
		265,968 18
		$264,114 81
Equipment		
Passenger and combination cars		27,897 66 Cr.
		$236,217 15
Details of Charges—		
Road		
Extension to Kirkland Lake and Larder Lake	$265,968 18	
Overhead work and bonding, new transfer siding, north of Haileybury	202 70	
Baseball ground spur, North Cobalt	40 83 Cr.	
Land and buildings sold (K. McDonald property), retired	1,803 30 Cr.	
Shelter station—retired	211 94 Cr.	
		$264,114 81
Equipment		
Coaches No. 20 and 26—retired		27,897 66 Cr.
		$236,217 15

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Eighteenth Annual Report

OF THE

ONTARIO RAILWAY

AND

MUNICIPAL BOARD

To December 31st, 1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
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PRODUCED BY
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CANADA

To The Honourable Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

The undersigned has the honour to transmit herewith the Eighteenth Report of The Ontario Railway and Municipal Board for the year ending December 31st, 1923.

Respectfully submitted,

W. F. NICKLE,
Attorney-General,

Parliament Buildings,
Toronto.

47 Queen's Park,
Toronto, March 24th, 1924.

Re Eighteenth Annual Report.

DEAR SIR,—I have the honour to send you herewith the Eighteenth Annual Report of The Ontario Railway and Municipal Board, to December 31st, 1923.

I have the honour to be,

Your obedient servant,

H. C. SMALL,
Secretary.

The Honourable the Attorney-General,
Legislative Buildings, Toronto.

EIGHTEENTH ANNUAL REPORT

of the

Ontario Railway and Municipal Board

to December 31st, 1923.

To The Honourable Henry Cockshutt,
Lieutenant-Governor of the Province of Ontario in Council.

In pursuance of Section 57 of "The Ontario Railway and Municipal Board Act," the Ontario Railway and Municipal Board beg leave respectfully to submit their Eighteenth Annual Report.

Sittings of the Board.

The Board held meetings for the transaction of routine business every juridical day throughout the year. The record of the sessions of the Board and an abstract of the proceedings, together with the Judgments or Opinions of the Board, appear in the Appendix.

Applications to the Board.

There were 833 formal applications made to the Board in 1923. Of the formal applications all those in which the parties were ready to go to trial have been heard and disposed of, except in a few cases where adjournments were granted to the parties at the request of counsel or in order to procure further evidence, or to obtain reports from experts in connection with technical matters in question.

Some of the formal applications are still standing for trial, but the parties are not yet ready to go to trial, as in the more important matters the parties interested are showing an increasing disposition to take advantage of the opportunities afforded them by the Board's Rules for obtaining discovery and production, thus, to some extent, delaying the final dates of the hearing of the applications, but in reality facilitating the final disposition at the hearings of all the matters in question between the parties.

Law Stamps.

The amount of revenue collected by the Board in Law Stamps in the year 1918 was $3,939.40; in 1919, $4,674.00; in 1920, $6,957.50; in 1921, $8,063.50; in 1922, $9,302.00, and $10,866.00 in 1923.

Provincial Railways.

An alphabetical list (under the names of the railway companies affected) of applications to the Board during 1923, affecting Provincial Railways, is contained in the Appendix to this Report.

Extensions of, and improvements to, Provincial Railways during 1923, as reported to the Board, will be found in the Appendix (arranged alphabetically) under the names of the several systems reporting.

A tabulation (arranged alphabetically) of Railways under the Board's jurisdiction, will be found in the Appendix. This tabulation shows, for each railway, the lengths of first and second main track, total main track, sidings and turnouts, and total computed as single track, the length under construction, the number of power houses and whether steam or water, and whence power obtained.

There will be found in the Appendix an analytical tabulated summary of Accident Reports received by the Board for 1923; also a continuation (up to and inclusive of 1923) of the Board's index to Railway Legislation.

The Appendix also contains tables showing provincial aid to railways since Confederation.

Reports to the House.

In pursuance of Rule 61a of the House the Board has made inquiry into and reported upon four financial Bills which were introduced last session into the Legislature. A list of the Bills so reported will be found in the Appendix.

Annexations of Territory.

There were 13 applications made in 1923 by cities, towns, villages and townships for annexation of additional territory thereto. An alphabetical list of annexation applications is contained in the Appendix.

Validation of Municipal Debentures.

(Section 295 of "The Consolidated Municipal Act, 1922.")

There were 165 applications to the Board under the above legislation in 1923, involving debentures of a total value of $6,061,954.16. Acting under the powers conferred by the above legislation the Board was able to grant relief in nearly all of these cases, included in which were more than 100 by-laws affected by irregularities which would otherwise have probably required special Acts of the Legislature to make the debentures valid and saleable.

Municipalities are showing an increasing disposition to have their by-laws and debentures validated under said section 295, even in cases where no irregularities occur requiring the curative powers of the Board thereunder, as they have found that such validation facilitates the marketing of their debentures.

The amount of debentures validated by the Board during 1908 was over $840,000; during 1909, over $1,326,000; in 1910, over $718,000; in 1911, over $1,350,000; in 1912, over $1,330,000; in 1913, over $2,990,000; in 1914, over $3,071,000; in 1915, $4,172,912.01; in 1916, $2,289,744.20; in 1917, $1,538,-689.99; in 1918, $5,273,742.43; in 1919, $2,209,589.99; in 1920, $4,359,538.05; in 1921, $5,297,925.75; in 1922, $6,046,223.10, a total to the end of 1923 of over $48,000,000. An alphabetical list of these applications filed in 1923 is given in the Appendix and will be found indexed under the word "Validation."

Assessment Appeals.

There were 9 assessment appeals to the Board during the year 1923. The assessed value of the property affected by these appeals was $2,009,369. An alphabetical list of these assessment appeals is contained in the Appendix.

Railway Returns.

Annual Reports to December 31st, 1923, by Railway Companies under the Board's jurisdiction, and a summarized tabulation thereof showing the details of their capital, assets, liabilities, operations, etc., will be found in the Appendix, alphabetically arranged. The reports were copied and tabulated as received and the Board has no means of auditing same and does not therefore represent or guarantee that such reports are correct or accurate.

Accidents.

A tabulated summary of Accident Reports received by the Board from Provincial Railways during the year 1923 appears in the Appendix and shows that 18 persons were killed and 592 injured during the year.

In 1908, 26 persons were killed and 391 injured; in 1909, 16 were killed and 340 injured; in 1910, 34 were killed and 399 injured; in 1911, 33 were killed and 541 injured; in 1912, 25 were killed and 537 injured; in 1913, 13 were killed and 710 injured; in 1914, 12 were killed and 613 injured; in 1915, 30 were killed and 612 injured (this included 15 killed and 144 injured in accident at Queenston, July 7th, 1915); 13 were killed and 356 injured in 1916; 27 fatal and 377 other personal accidents occurred in 1917; 22 persons were killed and 426 injured during 1918; in 1919, 24 persons were killed and 507 injured; 16 were killed and 473 injured during 1920; 10 persons were killed and 270 injured in 1921, and in 1922 there were 20 persons killed and 353 injured.

Ontario Safety League.

Early in 1913 the members of the Board called together representatives of various organizations which were specially interested in the question of street traffic. Representatives were sent from the Board of Trade, Canadian Manufacturers Association, City Council, Ontario Motor League, Board of Education, Separate School Board, Toronto Railway Company, Toronto District Labour Council, Boy Scouts, Team Owners' Association and many others. Every delegate realized that the question was one that dealt with actual dangers to which the public was constantly exposed, and each agreed that some definite and concerted action must be taken. After numerous conferences the Ontario Safety League was organized on the 17th September, 1913. The League has since done much good and vitally useful work towards lessening the dangers of travel, especially on congested highways.

A summary of the League's 1923 campaign appears in the Appendix.

The League has for sometime been arranging to become national in its organization and operations.

Plans.

(Plans of Land Subdivisions.)

Under "The Planning and Development Act" (Chapter 38, 1918), the Board considered during the year 95 applications for approval of plans. An alphabetical list of owners of the lands subdivided by these plans will be found in the Appendix.

154 such applications were considered in 1912; 213 in 1913; 137 in 1914; 38 in 1915; 18 in 1916; 41 in 1917; 37 in 1918; 49 in 1919; 109 in 1920; 77 in 1921, and 90 in 1922.

An Act to amend "The Land Titles Act," being Chapter 31, Ontario Statutes, 1917, requires plans of lands in territories without municipal organization to be approved by the Board. Under this legislation, which became effective on the 12th April, 1917, the Board, during the balance of that year received four applications, five in 1918, two in 1919, two in 1920, twelve in 1921, nine in 1922, and five in 1923. An alphabetical list of the owners of the land affected by the applications filed in 1923 will be found in the Appendix.

Forms.

The Board has (for distribution to parties interested) the following forms and specifications, namely:

(1) The Board's Rules of Practice, Specifications and Practice Forms.

(2) Standard Specifications for Bridges, Viaducts, Trestles or other Structures.

(3) Pamphlets containing copy of "The Ontario Telephone Act, 1918," and with information regarding Provincial Telephone Systems.

(4) Specifications for Local Municipal Telephone Systems.

(5) Forms under "The Planning and Development Act."

(6) Forms for submission of a by-law or question to a poll under the Municipal Act.

(7) Forms of affidavits in support of applications under section 295 of the Municipal Act.

(8) Form for Return by Municipality operating a Telephone System.

(9) Form for Return by Company, etc., operating Telephone System.

(10) Form for Tariff of Tolls for Telephone System.

(11) Forms for Annual Reports by Railway Systems.

(12) Forms for Reports as to Examination of Motormen.

(13) Forms for Reports of Accidents by Railway Systems.

(14) Regulation as to height of car steps.

(15) Directions for guidance of Applicants under subsection (3) of section 400 of the Municipal Act.

(16) Directions for guidance of applicants under "The Planning and Development Act."

Extensions of Municipal Utilities Approved under Subsection (3) of Section 400 of "The Consolidated Municipal Act, 1922."

An alphabetical tabulation (under names of municipalities) of extensions to public utilities made by municipalities, and approved by the Board under the above subsection (3) will be found in the Appendix, and is indexed under the word "Approval."

The total of the debenture by-laws approved in 1918 to pay for these extensions was $1,193,503.00; in 1919, $1,930,158.00; $1,733,109.00 in 1920; $2,921,292.51 in 1921; $5,782,578.72 in 1922, and $3,984,022.75 in 1923. This, of course, does not cover extensions made under by-laws approved by the ratepayers, but only under by-laws approved by the Board under the above subsection (3).

Miscellaneous Matters under the Board's Jurisdiction.

A classified analysis of miscellaneous matters dealt with under the jurisdiction of the Board (also indexed alphabetically under the names of the muni-

cipalities, companies, or persons affected) will be found in the Appendix. Those include Annexations under the Municipal Act; Arbitrations; Assessment Appeals under section 80 of "The Assessment Act"; Restrictions as to use of buildings, etc., approved under section 399a of "The Consolidated Municipal Act, 1922"; Financial and other Bills reported to the House under Rule 61a; Bridges, relief from reconstruction of (Sec. 460 (9) of the Municipal Act); Extension Debenture Issue Period, under section 288 (9) of the Municipal Act; Extension of time to pass By-laws, under section 280 (5) of "The Consolidated Municipal Act, 1922"; Farm Lands, detachment from Towns, &c., under section 21a of "The Consolidated Municipal Act, 1922"; Fuel, Municipal Dealings in, under section 399 (39a) of "The Consolidated Municipal Act, 1922"; Highways (narrow) approved under section 479 of the Municipal Act; Incorporations, under section 19 of the Municipal Act; Interest Increase or Decrease By-laws, approval of under section 291 of "The Consolidated Municipal Act, 1922"; Legislation (Special) approval of By-laws under; Local Improvements, part only of Work, approval of By-laws under section 18a of "The Local Improvement Act"; Local Improvements, Petitions against, under section 9 of "The Local Improvement Act"; Municipal Franchise Act (Chapter 197, R.S.O.), applications under; Northern Fire Relief Act, 1923, Applications under; Parks, setting aside of, for Athletic purposes, under section 13 of "The Public Parks Act" (Chapter 203, R.S.O. 1914); Restricted Areas, Approval By-laws establishing, under section 399a of "The Consolidated Municipal Act, 1922"; Repeal of By-laws as to residue not raised, section 292 of the Municipal Act; Sinking Funds, investment of, section 303 of the Municipal Act; (Police) Villages, formation of, under section 502 (3) and 504a of "The Consolidated Municipal Act, 1922"; Waterworks areas and construction (special legislation); Weigh Scales and Weighing of Coal, etc., By-laws under section 401 (13) of "The Consolidated Municipal Act, 1922"; Works ordered by Dominion or Ontario Railway Boards (Section 289 (2) of the "Municipal Act").

Under special legislation of the Provincial Legislature many other matters are now, at every session, referred to the Board for supervision or adjudication.

Public Utilities.

We have the honour to submit Reports for the year ending December 31st, 1923, upon radial electric and electric street and incline railways operating in the Province of Ontario under the jurisdiction of the Board.

We also submit six tabulated analytical statements prepared from the Annual Reports received from Provincial Railways, and showing the financial position and the operating details of such railways for the year 1923.

H. C. Small,
Secretary.

March 24th, 1924.

TELEPHONE SYSTEMS.

Report of the Supervisor of Telephone Systems for the Year 1923.

The following applications under the provisions of "The Ontario Telephone Act, 1918," were dealt with by the Board in 1923.

Under Section 3c: For authority to issue debentures for extensions and improvements to Telephone Systems under Part I 2

Under Section 7: For authority to remove signatures from petitions to Municipal Councils praying for the establishment of a telephone system 5

Under Section 13: For the approval of municipal by-laws providing for the establishment of telephone systems 12
Under Section 18: For the approval of municipal debenture by-laws to meet the cost of establishing or extending telephone systems 21
Under Section 19: For an extension of the period within which municipal debenture by-laws respecting telephone systems may be passed 5
Under Section 20: For an extension of the period in which to repay the debenture debt to meet the cost of establishing or extending telephone systems 1
Under Section 21: For authority to pass municipal debenture by-laws to meet the cost of reconstructing, replacing or altering telephone systems 6
Under Section 23: For authority to issue debentures for repayment of a portion of the principal and interest in respect of the cost of establishing a telephone system 1
Under Section 24: For the approval of the purchase of an existing telephone system by a municipality 8
Under Section 25: For an order fixing the price to be offered by a municipality for the purchase of an existing system 4
Under Section 67: For the approval of municipal by-laws granting the right to erect poles and wires upon the highways 41
Under Section 71: For the right to erect poles and wires upon the highways in unorganized territory 3
Under Section 74a: For the approval of the by-laws of a telephone company 7
Under Section 75: For an order requiring the reconstruction of a telephone system to ensure the provision of efficient service 1
Under Section 78: For the consent to erection of poles and wires parallel with existing lines 3
Under Section 79: For an order preventing the duplication of pole leads upon the same highway 3
Under Section 80: For an order fixing the terms and conditions for furnishing service 2
Under Section 82: For the approval of agreements providing for interchange of service 85
Under Section 83: For an order fixing the terms and conditions for interchange of service 2
Under Section 86: For approval of agreements eliminating competition between telephone systems 9
Under Section 87: For the approval of the sale of telephone systems 6
Under Section 88: For authority to increase the charges for telephone service 43
Under Section 94: For authority to issue capital stock or bonds 3
Under Section 93: For authority to expend a portion of the moneys set aside for depreciation, upon new construction or extensions 1
Under Section 107: Complaining of the paralleling of existing pole leads without the consent of the Board 2

Total Number of Applications 276

The Board or its Supervisor of Telephone Systems during the year visited 108 different points in the Province in connection with the foregoing applications.

The continued policy of the Board in endeavouring to secure an amicable settlement of matters in dispute between the applicant and respondent has,

with the assistance of the Board's Supervisor, proved successful in the majority of such cases.

In addition to the applications and complaints referred to, a vast amount of correspondence relating to telephone matters has been dealt with by the Board's Supervisor, through the medium of which much information and assistance has been given to municipalities, companies, and other persons interested, and many difficulties that might otherwise have necessitated a formal application and public hearing have been satisfactorily adjusted.

Forty-four points were visited by the Board's Inspector of Telephone Service during the year for the purpose of investigating complaints made by subscribers, and upon his report and recommendation the Board has been enabled to secure considerable improvement in the telephone service furnished by the systems coming under his observation.

The establishment of telephone systems by the rural municipalities under the provisions of Part II of "The Ontario Telephone Act, 1918," continues to grow in favour with the public. There are now 113 of these systems being operated or under construction. These systems are furnishing service in 246 towns, villages, and townships.

There are nine systems owned and operated by municipalities under the provisions of Part I of the Act, viz: The cities of Fort William and Port Arthur, the towns of Cochrane, Kenora, Fort Frances and Rainy River, and the townships of Alberton, Caledon and Hilliard.

The number of telephone systems of which the Board has record is 637, operating approximately 104,000 telephones and representing an investment of about $10,100,000. While the actual number of systems is less than in 1922, this is due to the merging of some of the smaller systems for the purpose of incorporation under "The Ontario Companies Act."

Detailed statistics and other information relative to the telephone systems within the jurisdiction of the Board will be found in the booklet "Telephone Systems, 1924," published concurrently with this report.

F. Dagger,
Supervisor of Telephone Systems.

APPENDIX TO THE EIGHTEENTH ANNUAL REPORT (TO DECEMBER 31st, 1923) OF THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Procedure File 7063.

In the matter of the Petition of J. W. Laing, et al., under section 9 of "The Local Improvement Act," against the repaving and widening of Ouelette Avenue, between Wyandotte and Erie Streets, in the City of Windsor.

Mar. 27th. Draft Order filed.

Apr. 10th. Form of Order settled (at Town Hall, Sandwich).

Apr. 14th. Order issued.

PROCEDURE FILE 7273

Between:

The Corporation of the City of Ottawa,
Appellant,

—and—

Estate of Hiram Robinson,
Respondent.

(Assessment Appeal.)

Oct. 16th. Hearing, pursuant to appointment, 11 a.m. to 5 p.m., at Board's Chambers. Hearing concluded, Judgment reserved.
Nov. 14th. Judgment, dated Nov. 5th, issued.
Nov. 23rd. Approved draft Order filed.
Nov. 23rd. Notice of Appeal filed.
Nov. 28th. Order issued.
Board's Judgment reported 25, O.W.N., 297.

OPINION OF THE BOARD.

These are appeals by the City of Ottawa from the decision of His Honour, the County Judge of the County of Carleton, reversing the decision of the Court of Revision as to certain assessments for income on the assessment roll made in 1920, and adopted by by-law of the Council as the basis of taxation for the year 1921. As the facts in all five cases are similar, all five cases were by consent heard together. The assessments complained of were entered on the roll under the following circumstances: At the request of the Assessment Commissioner for the City of Ottawa under section 18 of "The Assessment Act," each of the Respondents made a return to that official, Exhibit "D." These returns made between February and April, 1920, showed the several incomes for the year 1919 of the parties making them, and were taken by the Assessment Commissioner under section 11, subsection (2) of "The Assessment Act," as the amounts of income in respect of which these several parties were assessable for the year 1920. The assessments so made in the year 1920 were adopted by by-law of the City Council, No. 5065, passed the 6th June, 1921, as the assessments on which the rate of taxation for the year 1921 should be fixed and levied. No complaint was made by any of the Respondents in respect of these assessments. Early in April, 1921, the Assessment Commissioner learned that in December, 1920, a sum aggregating $1,750,000 had been distributed by the Hawkesbury Lumber Company amongst its shareholders by way of a dividend declared by the Directors out of the Company's surplus earnings. Of this amount the Respondents received by far the greater part as follows:

Sir Henry K. Egan	$574,000
Estate Hiram Robinson	574,875
Arthur Blackburn	262,500
R. L. Blackburn	160,125
Russell Blackburn	161,000

Upon receiving this information the Assessment Commissioner, believing that these amounts were assessable as income under section 11, subsection (2), entered them on the Assessment Roll then being made by him in the year then current, 1921, and which was afterwards adopted as the basis of taxation for

the year 1922. The parties so assessed appealed against these assessments, and in the result the assessments were directed to be struck from the assessment roll. Section 62, O.L.R., 183 (1923), S.C.R. 304.

While this series of appeals was in progress, on or about 13th December, 1921, the Assessment Commissioner reported to the City Clerk under section 54 (2) of "The Assessment Act" that the above named amongst others had been omitted from the rolls for the year then current, and asking that official to supply the omission. Acting upon this the Clerk in that month entered the above several sums on the assessment and collector's rolls for the year 1921 then current as income against the several Respondents, and notified them of his action. Against these several assessments the Respondents appealed unsuccessfully to the Court of Revision, and afterwards to the County Judge who, as above stated, directed them to be stricken off the rolls.

The circumstances under which this large fund was accumulated are set out fully in the reasons of the Board for its disposition of the first case, and need not be repeated here; see Board's Procedure Files Nos. 7151, 7169, 7170, and 7172.

A preliminary objection was raised to the jurisdiction of the Board to hear the appeals on the ground that no appeal lay from the decision of the County Judge on matters arising under section 54 of "The Assessment Act." The jurisdiction of the Board questioned by this objection was, however, exercised by the Board in the matter Re Canadian Cottons Limited and the Corporation of the Township of Cornwall. The Order of the Board is dated 26th June, 1922, and bears Procedure File No. 7179 on the Board's files. The matter was carried to the Appellate Division of the Supreme Court on Appeal against the Board's Order, and the appeal was dismissed as appears by Order of the Appellate Division dated 9th April, 1923. Although in the Canadian Cottons case the question of jurisdiction was not raised before the Board, nor so far as appears before the Appellate Division, the fact that jurisdiction to hear the appeal was entertained by the Appellate Division which supported the Board's radical revision of the assessment as fixed by the County Judge, warrant the Board in holding that this appeal is competent. No reasons were given for this judgment by the Appellate Division.

During the pending of the assessment appeals in the Canadian Cottons case above referred to there was litigation in the Supreme Court which is reported in 23 O.W.N. 298 and 24 O.W.N. 137.

Touching the assessability of these dividends two contentions of the Respondents made in these appeals were made by them also and disposed of by this Board in the former appeals. These contentions are:

(1) that as the enactment in the Statutes of 1920, Chapter 63, section 4, became law on the 4th June, 1920, it was not competent to treat the dividends declared in December, 1920, as income assessable in respect of that year; and,

(2) that the accumulated earnings constituting the fund out of which the dividends were paid were capital and therefore were not assessable against the Respondents as income. Both of these contentions were disposed of by the Board adversely to the Respondents for reasons set out in the opinion of the Board on file under Procedure Files Nos. 7151, 7169, 7170, and 7172, and as they were not dealt with authoritatively by either of the Courts before whom the appeals from the Board were carried as above mentioned, the Board adheres to its opinion there expressed. These reasons need not be repeated here, and may be found on the above files

Besides the contentions above referred to the Respondents raised two others, thus summarized by Mr. Tilley on p. 65 of the notes of evidence:

(1) that subsection (2) of section 54 has no application at all except to the total omission of assessed income; and,

(2) that whatever may be said as to whether the amendment could be made in 1920 it cannot be made in 1921, that not being the current year of the assessment at all.

Dealing with the first of these contentions, subsection (2) of section 54 reads thus:

"(2) If at any time it appears to any assessor or other officer of the municipality that during the year any income or business assessment has been omitted from the assessment roll for the current year he shall report the same to the clerk of the municipality who shall forthwith enter the same on the assessment and collectors' rolls for the current year and the party or parties so assessed and taxed shall have the right to appeal as provided in section 118. 10-11 Geo. V, c. 65, s. 6."

Mr. Tilley, adopting one of the reasons of the County Judge, lays stress on the occurrence of the word "any" before the word income in this section and says its effect is to make the subsection applicable only to a case where there has been a total omission to assess for income or business assessment as the case may be. Looking up the meaning of "any" as given in the dictionary it appears that its meaning is elastic, and that it is both singular and plural, thus it means in the plural sense "some," and in the singular sense it means "one." From this it surely appears that the phrase "any income assessment has been omitted" may mean a total omission of income from the roll, or the omission of some one or more sources of income out of a greater number of sources, some of which have been entered on the roll and some not. The Board cannot adopt the County Judge's interpretation of subsection (2) of section 54, and is of the opinion that it may include or apply not only to the case of a total omission of income properly assessable, but also to the case of a person properly assessed for a portion of his income where another or other portions of his income has or have been omitted.

Coming now to the contention that an amendment cannot be made in the assessment which has been made in 1920 and adopted by the Council of 1921 and on which the taxes are levied in the year 1921. Mr. Tilley, dealing with the interpretation to be placed on subsection (2) of section 54, is reported as saying at pp. 48, 49 and 50 of the notes of evidence:

"My submission is that (the term current year) it is limited entirely to the year in which the assessment is actually made, and has no relation to the year in which the previous assessment is adopted by the Municipal Council. The current year is the year in which that assessment is made. When you find any expression here which refers to an assessment for the current year you must take it as being the assessment for the year in which the assessment is actually made, and it does not refer to the adopted assessment. There can be no amendment of an adopted assessment under that section (54 (2)), certainly not unless the error is discovered in the current year of the assessment"; that would be in this case in the year 1920.

Mr. Tilley admits that his construction of section 54, subsection (2), has the result that this subsection cannot apply in the case of a city, which makes its assessment roll a year in advance of the year in which it is used as the basis of taxation. Thus in answer to a question "when could the amendment have been made?" Mr. Tilley says, p. 51 of notes of evidence, "Prior to the amendment

of 1922, I doubt whether it could have been made in a case where the city does not assess in the year in which it is collected."

It is common knowledge that all or nearly all the cities in Ontario take advantage of the provisions of sections 56 and 57 and base their taxation in a given year on an assessment made in the previous year. Mr. Tilley's admission means therefore that in most if not in all the cities of Ontario this enactment—section 54, subsection (2), passed in 1920—is not applicable to a mode of assessment prevailing in many cities of Ontario since the revision of the Assessment Act in 1904 at least. This is a serious result and should be avoided if any other construction without doing violence to its phraseology will enable this remedial enactment to be applied, as was the apparent intention of the Legislature, to cities as well as to other and lesser municipalities. This it seems to the Board can be done by regarding the assessment made in 1920 as the assessment for the current year, 1920, so long as the year 1920 is current, but regarding that assessment after its adoption by the Council in the year 1921 as the assessment for the year then current, that is the year 1921. This was the view of their Lordships of the Privy Council as expressed by them in their judgment in the case Cranby Consolidated & Company vs. Attorney-General for British Columbia (1923) A.C., at p. 251, where they say: "When dealing with the proper interpretation of the term 'current year,' the words 'for the current year' do not mean for taxation attributable to the current year, but give authority in 'the current year,' that is, the year in which the assessor is acting, to make a roll in respect of income of years which are past, not current and with which but for this section he would have no concern. An endeavour was made to give a different meaning to the expression 'current year' by pointing to the initial words of section 103, and saying that the expression must bear the same meaning in each of the two places in which it is found in the section. Their Lordships do not feel pressed with any difficulty in this respect. The word 'current' necessarily speaks as at some point of time. It may in one place speak as at one point of time and in another place as at another point of time, etc."

Apply this to the case in hand where an assessment roll is made in 1920 to be used as the basis of taxation for 1921, it may during the year 1920 well be designated the assessment for the "current year," that is for 1920; but when the year 1920 has elapsed and in the year 1921 the Council has by by-law adopted such assessment as the basis of taxation for the year 1921, the roll containing such assessment may properly be designated the assessment roll for the "current year," that is the year 1921; and when the Clerk in December, 1921, under the authority of section 54 (2) placed these income assessments on the assessment roll for the year 1921, that assessment roll at the point of time at which the Clerk acted was the assessment roll for the "current year."

There is in this construction nothing forced and only by adopting and applying it here can one escape the difficulty which follows on the construction proposed by Mr. Tilley, only in this way can the injustice of inequality be escaped. As set out in the 4th edition of Craic's Statute Law, p. 94, where two interpretations are suggested upon a statute the duty of the Court is to "try and get at the meaning of what was intended by considering the consequences of either construction, and if it appears that one of these constructions will do injustice, and the other will avoid injustice, it is the bounden duty of the Court to adopt the second, and not to adopt the first of these constructions."

Throughout his argument on the latter branch of his case Mr. Tilley contended that, while the assessment roll for 1920 (being the year in which it was made) might be amended in a proper case under section 54, subsection (2),

that roll after being adopted by Council as the basis of taxation for the year 1921 could not be amended. There seems to the Board to be no warrant for this view; section 70 of the Assessment Act gives finality to the assessment roll after revision by the Court of Revision subject to changes made by the County Judge on appeal. But notwithstanding this finality Mr. Tilley concedes that it may in a proper case be amended in 1920 under section 54 (2). Surely a roll made a year in advance and adopted by Council in the following year has no more unimpeachable finality in the latter year in a proper case merely because of such adoption if the Board is right in holding that after its adoption in the following year it becomes the assessment roll for that year, as the then current year under section 54 (2).

In the result the appeal should be allowed and the assessments as entered by the Clerk should be restored on the assessment and collectors' rolls for the year 1921.

There will be no costs to either party, but the several Respondents shall each pay a fee of $10.00 in Law Stamps on the Board's Order.

(Sgd.) D. M. McIntyre,
Toronto, November 5th, 1923. *Chairman.*

November 6th, 1923.

I regret that I cannot agree with the opinion of the Chairman of the Board as to the right of appeal to the Board herein.

In my view there is no appeal to the Board under sections 54 (2) and 118 (2) of the Assessment Act as they stood in 1921, and I am confirmed in this view by the judgment of Mr. Justice Middleton in Re Kilbourn and The City of Owen Sound, O.W.N., Vol. 25, p. 147.

I do not think that the action of the Board and of the Appellate Division in entertaining an appeal in the case of The Canadian Cotton Limited vs. The Corporation of the Township of Cornwall is a precedent which must be followed in this matter. In the Canadian Cottons case the question of the Board's jurisdiction to entertain the appeal was not raised, and, therefore, in my judgment that case does not bind the Board.

(Sgd.) J. A. Ellis,
Commissioner.

Under section 7 of The Ontario Railway and Municipal Board Act (Chapter 186, R.S.O. 1914) the opinion of the Chairman of the Board on any question of law shall prevail. The question on which the Chairman and Commissioner Ellis differ being one of law, the opinion of the Chairman prevails notwithstanding the dissenting opinion of Commissioner Ellis.

Procedure File 7274.

Between:

The Corporation of the City of Ottawa,

Appellant,

—and—

Sir Henry Kelly Egan,

Respondent.

(Assessment Appeal.)

Oct. 16th. Hearing, pursuant to appointment, 11 a.m. to 5 p.m., at Board's Chambers. Hearing concluded, Judgment reserved.

Nov. 14th. Judgment, dated Nov. 5th, issued. (See P.F. 7273.)
Nov. 23rd. Approved draft Order filed.
Nov. 23rd. Notice of Appeal filed.
Nov. 28th. Order issued.
Board's Judgment reported 25 O.W.N., 297.

PROCEDURE FILE 7275.

Between:

The Corporation of the City of Ottawa,

Appellant,

—and—

Arthur Blackburn,

Respondent.

(Assessment Appeal.)

Oct. 16th. Hearing, pursuant to appointment, 11 a.m. to 5 p.m., at Board's Chambers. Hearing concluded, Judgment reserved.
Nov. 14th. Judgment, dated Nov. 5th, issued. (See P.F. 7273.)
Nov. 23rd. Approved draft Order filed.
Nov. 23rd. Notice of Appeal filed.
Nov. 28th. Order issued.
Board's Judgment reported 25 O.W.N., 297.

PROCEDURE FILE 7276.

Between:

The Corporation of the City of Ottawa,

Appellant,

—and—

R. L. Blackburn,

Respondent.

(Assessment Appeal.)

Oct. 16th. Hearing, pursuant to appointment, 11 a.m. to 5 p.m., at Board's Chambers. Hearing concluded, Judgment reserved.
Nov. 14th. Judgment, dated Nov. 5th, issued. (See P.F. 7273.)
Nov. 23rd. Approved draft Order filed.
Nov. 23rd. Notice of Appeal filed.
Nov. 28th. Order issued.
Board's Judgment reported, 25 O.W.N., 297.

PROCEDURE FILE 7277.

Between:

The Corporation of the City of Ottawa,

Appellant,

—and—

Russell Blackburn,

Respondent.

(Assessment Appeal.)

Oct. 16th. Hearing, pursuant to appointment, 11 a.m. to 5 p.m., at Board's Chambers. Hearing concluded, Judgment reserved.
Nov. 14th. Judgment, dated Nov. 5th, issued. (See P.F. 7273.)

Nov. 23rd. Notice of Appeal filed.
Nov. 28th. Order issued.
Board's Judgment reported, 25 O.W.N., 297.

Procedure File 7317.

In the matter of the application of the Municipality of Dysart, under section 295 of "The Municipal Act," for validation of its By-law No. 641 and the debentures thereunder, $10,000.00, for Electric Light Plant at the Village of Haliburton.

Oct. 26th. Application by The Canadian Land & Immigration Co., Ltd., of Haliburton, for rescindment of Board's Order of Mar. 3rd, 1922.

Dec. 20th. Hearing, pursuant to appointment, at Board's Chambers, 2.30 to 5.30 p.m. Hearing and argument concluded. Judgment reserved.

Procedure File 7318.

In the matter of the application of the Municipality of Dysart, under section 295 of "The Municipal Act," for validation of its By-law No. 663 and the debentures thereunder, $15,000.00, for Electric Light Plant at the Village of Haliburton.

Oct. 26th. Application by The Canadian Land & Immigration Co., Ltd., of Haliburton, for rescindment of Board's Order of March 3rd, 1922.

Dec. 20th. Hearing, pursuant to appointment, at Board's Chambers, 2.30 to 5.30 p.m. Hearing and argument concluded. Judgment reserved.

Procedure File 7351.

In the matter of the petition of John Kellie and others, under section 21 of "The Consolidated Municipal Act, 1922" for the detachment of cetain lands from the Town of Southampton and the annexation of same to the Township of Saugeen.

Jan. 30th. Draft Order and other material filed.
Feb. 1st. Order issued.

Procedure File 7486.

In the matter of the application of Alfred H. Tuck and others, and of Fred Smith, under section 21a of "The Consolidated Municipal Act, 1922," for an Order detaching the farm lands described in Schedule "A" and Schedule "B" hereto annexed, from the Town of Barrie and annexing the same to the adjoining Township of Vespra.

April 27th. Approved draft Order filed and issued.

Procedure File 7510.

Application by The Toronto General Trusts Corporation (Trustee for S. G. R. B. Nordheimer, owner) under "The Planning and Development Act," for approval of plan of proposed subdivision of "Glen Edyth" (Nordheimer Estate).

Feb. 21st. Approved draft Order filed.
Feb. 21st. Order issued.
Feb. 21st. Amended plan approved and certified.

Procedure File 7619.

In the matter of the petition of W. I. Bourque and others, under section 9 of "The Local Improvement Act," against the construction as a local improvement of an asphalt pavement on Wellington Street—from Garland Street to Parkdale Avenue—in the City of Ottawa.

April 6th. Hearing continued, 10 to 11 a.m., Council Chamber, City Hall, Ottawa. Judgment reserved.

April 11th. Report of Mr. Commissioner Ellis (under section 9, Chap. 186, R.S.O.) filed and adopted.

April 17th. Draft Order filed.

April 17th. Order issued.

Report of Commissioner Ellis.

This work was authorized by special legislation under section 11 of chapter 123, 12-13 Geo. V. This legislation provided that the Council of the Corporation of the City of Ottawa might by By-law, to be passed under the provisions of and with the authority conferred by "The Local Improvement Act," undertake and complete and assess and levy the cost of the work notwithstanding that the debentures theretofore issued to provide for the cost of the existing local improvement work of a like character, which the proposed work would replace either in whole or in part, had not as yet been retired. It was also provided that, in the event of the Council undertaking the new work, it should raise and pay annually out of its general funds the balance remaining on the existing work. The original asphalt pavement on this street was constructed partly in 1912 and partly in 1913.

In By-law No. 3480 passed by the Council of the Corporation of the City of Ottawa, on the 4th day of November, 1912, there was included the construction of an asphalt pavement on Wellington Street from west of the lane between Spadina and Irving Avenue, to the west side of Rosemount Avenue in Dalhousie and Victoria Wards. This By-law provided for the issue of debentures and the levying of a special rate to pay for the work. The total cost of the work was $26,779.31 of which the City's share was $12,653.45, and the ratepayers' share $14,125.86. The annual rate per foot frontage was 39-8/10c.

In By-law No. 3686 passed by the said Council on the 15th day of December, 1913, there was included the construction of an asphalt pavement on Wellington Street from Rosemount Avenue to Holland Avenue. The total cost of the work was $28,941.89, of which the Corporation's share was $12,830.57, and the ratepayers' share $16,111.32. The annual rate per foot frontage was 46-64/100c.

It was estimated that the lifetime of the work in both cases would be twenty years, and the debentures were issued for this period.

The work now proposed to be undertaken covers that portion of Wellington Street included in the works undertaken under the two by-laws above mentioned.

The lifetime of the work now proposed is estimated at fifteen years.

The portion of Wellington Street in question is the main thoroughfare leading from the City of Ottawa westward, and it is traversed throughout its entire length by double street railway tracks.

It was admitted at the hearing of the petition that the street was in a bad condition and required resurfacing with asphalt and that the concrete base was disintegrated in many places and would require considerable repairing. This applies also to the base underneath the street railway tracks.

The estimated rate per foot frontage to be paid by the ratepayers for the

proposed work is $23.29. Taking into account interest during construction, and assuming that the debentures will bear interest at 5½ per cent., this would make an annual rate of about $2.30 per foot frontage.

Whilst there are some properties along the street in question which are assessed for large amounts about one half of the properties are assessed for $5,000 or under, and the rate per foot frontage for the proposed work would bear very heavily upon these smaller properties.

When By-laws Nos. 3480 and 3686 were passed the City paid for street intersections, cost of culverts and surface drainage, and also 30 per cent. of the remainder of the cost of all asphalt pavements. Some years ago the Corporation abandoned the practice of paying 30 per cent. of the cost of asphalt pavements, and under the proposed work it is estimated that the Corporation should only pay for the cost of street intersections, culverts and surface drainage which it is bound to pay in any event under the Local Improvement Act.

At the hearing of the petition the matter resolved itself into a question as to whether under all the circumstances the ratepayers should be called upon to pay the entire cost of the work less what the City is bound to pay under the Local Improvement Act. In my opinion the ratepayers should not have to pay the amount proposed. It is probable that the lifetime of the original works was over-estimated, and it is also very probable that the works were not as well constructed as they should be. In addition to this there is an extra cost included in the work now proposed by reason of the resurfacing with asphalt between the street railway tracks and the repairing of the base underneath such tracks.

Under By-law No. 3480, the ratepayers will, including 1923, have paid for eleven years, and under By-law No. 3686 they will, including 1923, have paid for ten years. If the ratepayers in the case of By-law No. 3480 paid the old rate under that By-law for nine years more, and if the ratepayers under By-law No. 3686 also paid the old rate under that By-law for ten years more, and then if the ratepayers under both by-laws paid for the new work for a further period which would make up fifteen years in each case, this would mean that the ratepayers would pay approximately fifty per cent. of the cost of the new work exclusive of what the Corporation is bound to pay under the Local Improvement Act.

I recommend that the Corporation in addition to the cost of the work opposite street intersections and the cost of culverts and surface drainage pays also forty per cent. of the balance, and that the ratepayers pay the remainder, and that the Reports of the City Engineer, the Assessment Commissioner, and the Board of Control, be amended accordingly. This will make the estimated cost to the Corporation $57,657.69, including the cost of the work opposite street intersections and the cost of culverts and surface drainage, and the estimated cost to the ratepayers $62,715.31. At the hearing of the petition I intimated that this would probably be my view of the matter, and those who represented the ratepayers stated that this would be satisfactory.

(Sgd.) J. A. Ellis,
Commissioner.

Adopted:

(Sgd.) D. M. McIntyre,
Chairman.

(Sgd.) A. B. Ingram,
Vice-Chairman.

Dated at Toronto, this 11th day of April, A.D. 1923.

Procedure File 7627.

In the matter of the petition of James Losty and others, under section 9 of "The Local Improvement Act," against the construction as a local improvement, of an ashpalt pavement on Cobourg Street—between Rideau and Clarence Streets—in the City of Ottawa.

Mar. 23rd. Hearing, pursuant to adjournment, 10 to 10.30 a.m., Council Chamber, City Hall, Ottawa. Report withdrawn by City.

Procedure File 7636.

In the matter of the application of The Ottawa Street Incline Railway Company of Hamilton, for the approval, under "The Ontario Railway Act," of plan prepared by Messrs. MacKay & MacKay, Ontario Land Surveyors, and dated December 15th, 1922, and showing the proposed location of an Incline Railway from a point situate on Lots 209 to 215 (inclusive) in the Kingsvale Survey, in the Township of Barton, to a point at the summit of the Mountain in Lot 3, Concession 4, in the Township of Barton, in the County of Wentworth.

Jan. 10th. Further material filed.

Jan. 24th. Hearing, pursuant to appointment, 10.30 a.m.; 11.45 a.m. to 12 m. at Court House, Hamilton. Judgment reserved.

Feb. 8th. Judgment delivered dismissing application.

Feb. 23rd. Approved draft Order filed.

Feb. 23rd. Order issued.

Opinion of the Board.

The Ottawa Street Incline Railway Company of Hamilton, incorporated by chapter 143 of the Ontario Statutes, 1922, has applied to the Board for approval of its plan of a proposed incline railway. By section 2 of its Act above mentioned the Company is given full power and authority "to construct, complete and operate an incline railway from some point at or near the southerly end of Ottawa Street, in the City of Hamilton, in the County of Wentworth, to the brow or summit of the escarpment or mountain adjacent thereto in the Township of Barton, in the County of Wentworth." The purpose of the railway when built is to transport traffic from the lower level at the foot of the escarpment to the elevated plateau forming the mountain south of the city and *vice versa*. The plan submitted for approval shows the low level terminus in the Township of Barton at a point some seven hundred and fifty feet distant from the southerly end of Ottawa Street which street is in the City of Hamilton.

The City of Hamilton and the Parks Board of the City by their Counsel oppose the approval, urging mainly two objections:

1. That the Board has no power to entertain the application.

2. That the Company has no right under its Act of Incorporation to locate its low level terminus at a point in the Township of Barton.

The Board had considered these objections and the material submitted at the hearing on 24th January *ultimo*, at Hamilton, and was ready to dispose of the application when the Board received a letter from Mr. Waddell, City Solicitor for Hamilton, calling the Board's attention to the provisions of section 11 of The Public Parks Act, chapter 203, R.S.O. (1914), which had not been

referred to at the hearing. The concluding paragraph of subsection (2) of that section reads: "No street railway or other railway shall enter upon or pass through the park." As the material before the Board shows that the route of the proposed railway passes through and over a parcel of land owned and held by the City of Hamilton for park purposes, this fact would seem to stamp as *ultra vires* the action of the applicant in projecting its railway through this park parcel. To this the only answer of the applicant as set out in Mr. Simpson's letter to the Board of 5th February instant is, that the City had acquired the lands in question for park purposes in the year 1913, and had not made any effort to comply with the provisions of section 398 subsection 32 (a) (12 and 13 Geo. V, chapter 72) by putting the land in an efficient state, opening it to the public as a park and maintaining it in a state of repair and providing police protection therefor. It seems to the Board that this is no answer to the action of the applicant in proposing to route the railway through and over prohibited land. Even though the Municipal Corporation has been remiss in the discharge of its duties towards this land, it is still park land and as such there is attached to it the incident of inviolability by any railway; at all events by any railway under provincial jurisdiction which the applicant's railway is.

It is urged upon the Board that it should consider the plan from the standpoint of engineering sufficiency only and that the question of the right of the applicant to lay out its railway over the route as shown on the plan need not be considered at this stage, the question of the Company's right to take the lands not being under consideration on this application. In the Board's view the contention is not maintainable. The Board is of the opinion that if the proposed route of the railway as shown on the plan is in whole or part unwarranted in law it should withhold its approval. That the proposed route is unwarranted, in that, in breach of express statutory prohibition, it shows the applicant's railway passing through park lands, the Board has no doubt. The Board concludes that in consequence of this the action of the applicant in so projecting its railway is illegal and should not at this or any stage of the evolution of the railway be sanctioned by the Board.

The application is dismissed and the Board's approval of the plan is withheld.

There will be no costs to either party but the applicant shall pay in stamps on the Order $10.00.

(Sgd.) D. M. McIntyre,
Chairman.

Toronto, February 8th, 1923.

Procedure File 7668.

In the matter of the application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed change of location of Finch's Siding on the Metropolitan Division of The Toronto & York Radial Railway.

Feb. 13th. Application filed. (For approval of blue print drawing No. 106-212.)

Feb. 23rd. Hearing, pursuant to appointment, 10.30 a.m. to 12 m. at Board's Chambers. Application granted. (See Reporter's Notes.)

PROCEDURE FILE 7686.

Between:

The Canadian National Railways,
(Canadian Northern Realties, Ltd.)

Appellant,

—and—

The Town of Capreol,

Respondent.

(Assessment Appeal.)

June 7th. Order, dated February 19th, 1923, of Appellate Division, referring appeal back to this Board, filed.

June 19th. Hearing, pursuant to appointment, 10.30 a.m. to 4.40 p.m. at Board's Chambers. Judgment reserved.

June 28th. Judgment delivered.

Sept. 5th. Notice of Appeal by Canadian Northern Realties, Ltd., from this Board's Judgment of June 28th, 1923, filed.

OPINION OF THE BOARD.

Upon an appeal to the Supreme Court of Ontario (Appellate Division) from the Judgment of the Board in this matter, dated the 10th October, 1922; and the said Court having ordered as follows:

"That this matter be and the same is referred back to The Ontario Railway and Municipal Board, in order that the said Board may consider and determine whether the respondent is entitled to exemption under the provisions of subsection 9 of section 5 of "The Assessment Act," and to hear all evidence relevant thereto adduced by the parties," this Board did, upon notice to all parties in interest, appoint Tuesday, the nineteenth day of June, A.D. 1923, at its Chambers, 47 Queen's Park, in the City of Toronto, at the hour of half-past ten in the forenoon, for the purpose aforesaid.

After, at said time and place, hearing the evidence adduced and the argument addressed to the Board, and considering the same, the Board has reached the conclusion that the respondent in said appeal is not entitled to exemption under subsection (9) of section 5 of "The Assessment Act," the respondent, as shown abundantly throughout the evidence, erected and in part has since maintained the building, whose assessment is in question here, for the purpose of affording its employees healthful and wholesome living conditions which have been heretofore lacking in Capreol. So far from regarding the enterprise as a charitable institution conducted on philanthropic principles and not for the purpose of profit or gain, the respondent at the hearing made no secret that it expected a substantial return on its expenditure in the improved morale and physique of its men, which would bear fruit in increased efficiency in the operation of its railway system, which meant a monetary return to the company.

Neither does a consideration of the character and method of the business carried on, on the premises in question, lead to the conclusion that the building falls within the class of properties that should be exempt from taxation, and which are defined in specific and general terms in the statute.

A perusal of the Treasurer's reports—Exhibits 3 and 4—discloses that, with the exception of the subsidy of some $1,800 a year from the Canadian National Railway, the revenue of the assessed occupant—the R.R. Y.M.C.A.—was received in return for services rendered by each occupant, and those services

were not rendered in the way of charity nor—the Board ventures to affirm—would the recipients, or the greater part of them, have accepted the services as by way of charity.

An unmistakable side light is thrown on the liability to taxation under the general law of buildings of the kind where accessability is in question here in the view of the Legislative Assembly by the invariable inclusion in an Act incorporating a local Young Men's Christian Association of a provision somewhat in those terms, which may be found in a Hamilton Act, 1 George V, Chap. 145, Section 10:

"10.—(1) The buildings of the Hamilton Young Men's Christian Association and the lands whereon the same are erected, and such lands as are occupied by and used for the purposes of the Association, so long as the same are occupied by and used for the purposes of the Association, shall be and the same are declared to be exempt from taxation, except for school purposes and local improvements, and except as provided by subsection (2)."

Such an exemption section may be found in a score of Acts passed by the Ontario Legislature incorporating local Young Men's Christian Associations.

For the foregoing reasons the Board has reached the conclusion on the above reference back that neither the respondent nor the assessed occupant is entitled to exemption from taxation under the provisions of subsection (9) section 5 of "The Assessment Act."

(Sgd.) D. M. McIntyre,
Chairman.

Dated at Toronto, the 28th day of June, A.D. 1923.

Procedure File 7727.

In the matter of the application by The Hydro-Electric Power Commission of Ontario, under section 250 of "The Ontario Railway Act," for approval of change of location of "Bayles Switch," etc.

Feb. 2nd. Hearing, pursuant to appointment, 10.30 a.m.; 11 to 11.35 a.m., at Board's Chambers. Application granted as to Bayles siding plan. Adjourned as to Mausoleum Crossing to 9th inst., at 10.30 a.m.

Feb. 9th. Hearing continued, 10.30 to 11.20 a.m. Adjourned to 23rd inst., at 10.30 a.m.

Feb. 23rd. Hearing continued, 10.30 a.m. to 12 a.m. Application granted. (See Reporter's Notes.)

Procedure File 7742.

In the matter of the application of the Town of Rainy River for authority to increase the charge for Residence Telephone Service from $20.00 to $25.00 per annum.

Mar. 18th. Hearing, pursuant to appointment, 8 to 8.30 p.m., Town Hall, Rainy River.

Mar. 27th. Report of Vice-Chairman (under section 9, Chap. 186, R.S.O.) filed and adopted.

Mar. 27th. Order.

Report.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. Ingram,
Vice-Chairman.

March 27th, 1923.

ORDER.

Upon the application of the above-named Applicant, upon reading the Report of A. B. Ingram, Esquire, Vice-Chairman, who heard the evidence adduced on behalf of all parties, Statements of Assets and Liabilities, Receipts and Disbursements and other material filed.

The Board orders that the Applicant be authorized to charge an annual rental of $25.00 for Residence Telephone Service, to take effect as from January 1st, 1923.

And the Board further orders that the charges for telephone service and collected by the Applicant prior to December 31st, 1922, shall be deemed to have been lawfully levied and collected and are hereby validated and confirmed.

And the Board makes no Order for costs, save and except that the Applicant shall pay $10.00 for the law stamps required for this Order.

(Sgd.) D. M. McINTYRE,
(Seal) *Chairman.*

PROCEDURE FILE 7843. P. 447.

In the matter of the petition of M. H. McGinnis, and others, under section 9 of "The Local Improvement Act," against the construction, as a local improvement, of an asphaltic concrete pavement on Station Street, in the City of Belleville.

June 21st. Order issued.

PROCEDURE FILE 7851.

Application by the City of Kitchener, under section 479 of "The Consolidated Municipal Act, 1922," for approval of the opening of a 15-foot lane from Foundry Street to Queen Street, in the City of Kitchener.

Mar. 14th. Hearing, 11 a.m. to 11.15 a.m., pursuant to appointment—of application to re-open this matter. Application granted.

Mar. 14th. Approved draft Order filed. Board directs issue of Order in form of such draft. Appointment for hearing to issue on application of city or property owners.

Sept. 11th. Hearing, pursuant to above Order, 11.30 a.m. to 1 p.m., Council Chamber, City Hall, Kitchener. City to withdraw present By-law and pass a By-law changing location of lane as indicated on plan (making a jog in the lane).

PROCEDURE FILE 7891.

Application by the Township of Grantham under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law, No. 397, establishing restricted districts or zones in the Township of Grantham.

Jan. 25th. New By-law, No. 409, filed.

Feb. 12th. Hearing, pursuant to appointment, 11 a.m. to 12.30 p.m., Court House, St. Catharines. Township Council to consider the amendment of By-law to allow stores to be erected on Ontario Street South, and the erection of buildings fifteen feet from street line.

May 1st. Approved draft Order filed and issued.

PROCEDURE FILE 7894.

In the matter of the petition of Emile Bohiemier and others, under section 9 of "The Local Improvement Act," against the proposed resurfacing of Cumberland Street, between Osgoode and Somerset Streets, in the City of Ottawa.

July 19th. Engineer's Report filed.

July 19th. Report of Mr. Commissioner Ellis filed and adopted. Petition dismissed.

Aug. 1st. Draft Order filed.

Aug. 7th. Order issued.

July 18th, 1923.

ENGINEER'S REPORT.

The Chairman,

The Ontario Railway and Municipal Board, Toronto.

Sir:

Re Cumberland Street, Ottawa.

On Friday last, the 13th instant, I examined the surface of Cumberland Street, Ottawa, between Osgoode and Somerset Streets, accompanied by Mr. Ellis of your Board, and Mr. McCallum, the City Engineer, and found it very badly worn. This surface is of tarred macadam and is on a stone base, which is visible in places, and seems in good condition.

The city authorities wish to put an asphalt surface on the stone base,which would then make the street quite good all over, and I am of opinion that this should be done as soon as possible.

Yours truly,
(Sgd.) H. W. MIDDLEMIST.

REPORT OF COMMISSIONER ELLIS.

At the hearing of the petition in this matter in November last, the Petitioners claimed that the proposed work was not necessary, and that all that was required was ordinary repair to the present pavement and more attention, which it had never received since it was laid. I said at the hearing that I would get a report from the Board's Engineer upon the condition of the present pavement, and the necessity for the proposed work. Mr. Middlemist made an inspection on the 13th instant, and I attach hereto his report. He states that the surface of the present pavement is of tarred macadam, and is on a stone base which is visible in places, and it seems in good condition. He is of opinion that the putting of an asphalt surface on the stone base would make the street quite good all over, and thinks that this should be done as soon as possible. With this report I agree, and I therefore recommend the petition be dismissed.

(Sgd.) J. A. ELLIS,
Commissioner.

Toronto, July 19th, 1923.

PROCEDURE FILE 7960.

In the matter of the application of the Commissioners for the Telephone System of the Township of Widdifield, for the approval of the following charges for telephone service:

To Subscribers ..... $31.00 per annum.
To Renters ..... 25.00 per annum.

Mar. 12th. Hearing, pursuant to appointment, 3 to 4 p.m., Town Hall, North Bay.

Mar. 27th. Report of Vice-Chairman (under section 9, Chap. 186, R.S.O.) filed and adopted.

Mar. 27th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

Toronto, March 27th, 1923.

March 27th, 1923.

ORDER.

Upon the application of the above-named Applicants, upon reading the Report of A. B. Ingram, Esquire, Vice-Chairman, who heard the evidence adduced on behalf of all parties, Statements of Assets and Liabilities, Receipts and Disbursements and other material filed.

The Board orders that the Applicants, the Commissioners for the Telephone System of the Township of Widdifield, be authorized to charge the following rates for telephone service to take effect as from January 1st, 1923:

To Subscribers.....$31.00 per annum.
To Renters..... 25.00 per annum.

And the Board further orders that the charges for telephone service levied and collected by the Applicants prior to December 31st, 1922, shall be deemed to have been lawfully levied and collected and are hereby validated and confirmed.

And the Board makes no Order for costs, save and except that the Applicants shall pay $10.00 for the law stamps required for this Order.

(Sgd.) D. M. NCINTYRE,
Chairman.

(Seal)

PROCEDURE FILE 7981.

Application by the Township of Saltfleet, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its Restricted Area By-law.

Jan. 24th. New By-law filed.

Feb. 15th. Hearing, pursuant to appointment, 10 to 10.15 a.m., Court House, Hamilton. By-law approved.

Feb. 17th. Draft Order filed and issued.

PROCEDURE FILE 7992.

In the matter of "The Provincial Highway Act," Statutes of Ontario, 7 Geo. V, Chapter 16, and amendments thereto, and

In the matter of "The Ontario Public Works Act," R.S.O., 1914, Chapter 35, and amendments thereto, and

In the matter of the expropriation by the Department of Public Highways of certain lands, being part of the Gore of the Township of Ancaster, owned by Edward New.

Jan. 30th. Hearing, pursuant to appointment, 10.30 a.m. to 6 p.m., Court House, Hamilton, Adjourned to 31st at 10 a.m.

Jan. 31st. Hearing continued, 10 a.m. to 6 p.m. Adjourned to February 19th, 1923, at 10.30 a.m., Court House, Hamilton.

Feb. 19th. Hearing continued, 10.30 a.m. to 6 p.m. Adjourned to 20th inst., at 10.30 a.m.

Feb. 20th. Hearing continued, 10.30 a.m. to 7 p.m. Judgment reserved.

Mar. 19th. Award and reasons therefor delivered.

Award.

To all to Whom these Presents Shall Come:

The Ontario Railway and Municipal Board send greeting.

Whereas the Hamilton and Dundas Stone Road was designated and assumed by the Lieutenant-Governor in Council as a Provincial Highway, pursuant to the provisions of Chapter 16 of "The Provincial Highway Act," passed in the seventh year of the reign of His Majesty King George V;

And whereas for the purposes of the said highway it became necessary for the Department of Highways of the Province of Ontario to expropriate and take from the said Edward New a portion of his land situate on the south side of the said highway, and being a part of the Gore in the First Concession of the Township of Ancaster, in the County of Wentworth, and containing by admeasurement 0.27 one-hundredths of an acre;

And whereas, pursuant to the provisions of Section 29 of "The Ontario Public Works Act"—being Chapter 35 of the Revised Statutes of Ontario—the Honourable the Minister of Public Works and Highways gave notice that he desired that the compensation to be made to the owner, the said Edward New, should be determined by The Ontario Railway and Municipal Board;

And whereas The Ontario Railway and Municipal Board did appoint Tuesday, the 30th January, A.D. 1923, at the Court House, in the City of Hamilton, to hear the matters alleged by the parties in interest of which due notice was given;

And whereas The Ontario Railway and Municipal Board did attend at the said time and place, and subsequently at adjourned sittings held on the 31st January, 1923, the 19th February, 1923, and the 20th February, 1923, respectively, and did hear what was alleged by and on behalf of the parties in interest both by way of evidence and argument;

Now know ye that we, the said The Ontario Railway and Municipal Board, having taken upon ourselves the burthen of the said arbitration, and having heard and duly considered all the allegations and evidence of and concerning the said matters so referred as aforesaid, do make and publish this our Award in writing, of and concerning the matters so referred to us, and do hereby award and direct that the said the Department of Public Highways of the Province of Ontario do pay to the said Edward New the sum of $3,515.95 compensation for the damages necessarily resulting to him from the exercise by the Honourable the Minister of Public Works and Highways, of his powers as hereinbefore recited beyond any advantage which the owner, the said Edward New, may derive from the contemplated work, together with interest upon the said sum at the rate of five per cent. per annum from the 15th day of May, A.D. 1922;

And we do further award and direct that the said Edward New be paid his costs of the said arbitration and award upon the Supreme Court scale to be taxed by one of the taxing officers of the Supreme Court;

In witness whereof we have hereunto set our hands and the seal of the said The Ontario Railway and Municipal Board this 19th day of March, A.D. 1923.

(Sgd.) D. M. McIntyre,
Chairman.

(Seal)

(Sgd.) A. B. Ingram,
Vice-Chairman.

(Sgd.) J. A. Ellis,
Commissioner.

Reasons of the Board.

By letter dated 13th October, 1920, the Department of Highways of Ontario gave the claimant notice of the expropriation of certain land belonging to him in the Township of Ancaster, in the County of Wentworth. The lands required are described in the letter of that date addressed to the claimant from Mr. McLean, the Deputy Minister of Highways, as having a width varying from 18.5 feet to 18 feet. The land was spoken of during the arbitration as having a width of 18 feet 4 inches, and it had a frontage on the Hamilton and Dundas Stone Road of 632 feet. The plan and description of the land taken were registered in the proper Registry Office on 23rd September, 1920, and it was of that date that compensation is to be fixed (p. 411 of notes). The land was required by the Department for the purpose of widening the highway to a width of 86 feet, it having been designated and assumed as a Provincial Highway by that Department. In the above letter the Department offered to pay the claimant at the rate of $1,285 per acre in full compensation for the property, which contained 0.27 of an acre. The claimant refused the offer, and the duty of fixing the compensation comes to the Board under the Public Works Act of Ontario.

The entire property owned by the claimant, of which the parcel expropriated formed a part, contained some 19 acres, and is the site of a brick-making plant owned by him, and upon which he manufactures building brick for sale. The property, situated on the south side of the highway, is divisible into two areas; first, a level plateau extending southerly from the highway of the full width of the property to the broken line shown on Exhibit No. 1, which contains some seven acres; second, the property lying south of the broken line above mentioned, which is rough and sharply undulating, and is the area from which the claimant has taken the clay used in his brick-making operations. The area of seven acres is suitable for subdivision into building lots, and the claimant contemplates such a user at some future time; the remainder of the land is not suitable for such purpose in its present state. Upon the area described as the plateau the claimant has erected and operates his brick-making plant, and he contends that as a consequence of the expropriation of the strip of land 18 feet 4 inches in width he will be obliged to move his entire brick-making plant 18 feet 4 inches southerly, at great cost to him, and that by reason of his moving his plant in part in the spring of 1922, he was unable to operate his plant for some five weeks, and lost a favourable market for his possible output during that period.

The plant as it existed before the expropriation briefly stated comprised the following:

(1) A kiln ground 350 feet by 34 feet (p. 290 of notes of evidence) which extended about two feet over the new highway line;

(2) gas pipes which, looped around the kiln ground, were some 1,200 feet in length; some 3-inch and some 4-inch (pp. 21 and 62). These pipes were covered in the ground and supplied the gas for burning the brick;

(3) a roadway of cinders some ten feet wide which ran entirely around the kiln ground, and along which trucks passed when removing bricks from the kiln (pp. 22 and 37);

(4) north of the kiln ground was a vacant, narrow place used for piling spoiled bricks and also as a site for the kiln supports (p. 23);

(5) south of the roadway to the south of the south side of the kiln ground were two parallel concrete runways 350 feet to 400 feet long and 2 feet 10 inches wide, extending from end to end of the dry racks hereafter referred to. These runways were used for wheeling the trucks or barrows laden with unburnt bricks to the kiln (p. 23);

(6) south of the concrete runways were the dry sheds or racks. Of these racks there were 22 arranged in parallel lines extending from north to south, and in length varying from 186 feet on the west side to 162 feet on the east side. Each of the 22 racks rested on two parallel piers of concrete, 9 inches by 9 inches, which extended throughout the entire length of the rack. Each dry shed or rack is 4 feet wide, and the dry sheds are 12 feet apart (pp. 23 to 26);

(7) south of the drying sheds were the two machine plants for making bricks. These machine plants were placed as shown on Exhibit No. 1, so that the moulded bricks from the machines might be distributed most conveniently to the drying sheds. These machines were enclosed in two rough sheds, which stood one 25 feet and the other 50 feet from the broken line shown on Exhibit No. 1, which marked the line of the clay working;

(8) in addition and accessory to the machinery buildings there were water tanks, electric transformers, sand drying platforms, etc., to which, in view of the Board's findings on certain branches of the claim, it is unnecessary to refer at greater length.

The claimant has itemized his claim under eight heads, as follows:

(1) Land taken	$2,000 00
(2) Money already spent in moving gas pipes, rebuilding kiln ground and roadways around the same, and the temporary moving of a portion of the dry sheds	1,229 95
(3) Estimated cost of completing roadways around kiln grounds.	500 00
(4) Estimated cost of raising new kiln ground six inches, and readjusting same	200 00
(5) Estimated cost of moving balance of dry sheds	500 00
(6) Loss of clay suitable for brick-making	752 00
(7) Estimated cost of moving two machinery plants	4,000 00
(8) Estimated loss of output of plants for five weeks, while portions of plant were being moved and reconstructed	5,000 00
	$14,181 95

The Board had no difficulty in reaching the conclusion that, by reason of the expropriation of the claimant's land, it has become necessary for the claimant to move portions of his plant and to reconstruct other portions, and that during the process of his moving and reconstruction there was necessarily an interruption of his business of manufacture. While this is so, the Board is also of the opinion that the claimant has grossly overstated the quantum of change and reconstruction necessitated and the attendant cost. The Board is satisfied that the claimant has made good his claim to compensation in respect of the above items, numbered 1, 2, 3, 4, 5 and 8, but not in respect of items numbered 6 and 7.

As to Item No. 7:

It is alleged by the claimant that it will be necessary to remodel the layout of his plant by severing 19 feet from the north end of each of the 22 drying sheds and placing the severed portions at the south end of the drying sheds. One consequence of this would be that when the 22 drying sheds are extended by the addition of 18 feet at their southern extremities, they would encroach upon the two brick-making machines to the south, and it would be practically impossible to work the plant until the machines were moved 18 feet south of their present site. This conclusion is founded on the false hypothesis that when the north 18 feet are severed from the 22 drying sheds—and there is no doubt this must be done—the only available site to which to remove them is along the south ends of the drying racks. In the opinion of the Board the severed racks or sheds—with an aggregate length of 396 feet—may be set up at the westerly end of the drying sheds and there form three additional drying sheds of an average length of 132 feet each. The claimant objects to the severed drying sheds being placed at the west end on the ground that it would destroy the balance and symmetry of his layout, in that the distances to be traversed by the workmen wheeling the moulded bricks from the machines to the dryers would be greatly increased, and that it would become necessary to employ two additional men; at p. 42 of the notes there are set out the consequences in cost of this, namely, two men at $6.00 each for 120 days, or say 100 days, which is $600.00, and for the two men this is $1,200; and as the claimant has clay to work for thirty years, the result is a burden of $36,000 on this plant for that period of time. Mr. Dingledine, a witness called by the respondent, who impressed the Board by his candour and intelligence, says at p. 466: "The machinery and buildings should not be moved"; and again at p. 468: "The kiln ground has to be moved back and the shortening up of the dryer racks is going to have the advantage of bringing the machinery buildings nearer the present kiln ground than they were before, and that will be an advantage and not a disadvantage. In moving those racks to the west side as far as the drying is concerned it can be demonstrated that there is no difference or rather that the added distance that must be travelled in going from the machinery to these racks on the west side is more than compensated for by the shorter distance, 18 feet on all the racks, so that I see no reason why the buildings should be moved or why the dryer racks cannot be cut off and taken over on the west side."

Mr. Dingledine confirmed his oral testimony by certain arithmetical calculations which satisfied the Board that he was right in his conclusion that the machinery buildings need not be moved as contended for the claimant. It follows that there is no necessity arising out of the expropriation to move the water tanks, the electrical motors and other equipment subsidiary to the main machines in the buildings.

The Board is therefore unable to allow compensation in respect of Item No. 7.

As to Item No. 6.

This claim is based on the assumption that the entire plant would require to be moved south 18 feet 4 inches, thereby encroaching on the available clay beds lying just south of the machinery buildings. As Mr. Ronald H. New says, at pp. 44 and 45: "The northerly edge of our clay-taking operations will simply be shifted 18 feet south." Asked by the Chairman, p. 67:

"Q. If you did not remove the machinery buildings you would not encroach in any measure on your clay deposits. I understand the clay you are working is south of this dotted line?

"A. That is correct . . . . we would not encroach on it with our plant." The Board concludes from this that as the buildings need not, on its finding, be moved, no claim for compensation for clay south of the buildings can be supported.

As to the clay in the land actually taken immediately south of the highway, the Board is satisfied that it had no commercial value for brick-making purposes, as the evidence indicates that the claimant never intended to use it in that way. At p. 44 of the notes Mr. Ronald H. New says: "It is not the intention to take the clay out up to the highway; it is the intention as we draw towards the highway, to slope it up so as to leave the property in good condition for real estate after brick-making operations have ceased." That is, the Board understands, for subdivision and sale for building lots.

Again at p. 68 the same witness says, speaking of the excavation of clay for brick making: "We may come farther towards the highway yet; we have not made up our minds how close to the highway we will go, we want to leave the front part on the highway in good condition."

On this evidence the Board can allow no compensation in respect of Item No. 6.

As to Item No. 1:

Upon the subject of land values the witnesses on either side are hopelessly at variance. For the claimant it is sworn by one that the land taken is worth $2,387.13 (p. 287); by another, $2,550 (p. 240), and by a third, $2,615 (p. 275). The respondent's witnesses placed the value at a much lower figure; for instance, Mr. Crompton thought $576 the full net value (p. 395); while Mr. Hamilton placed it at $375 (p. 413).

As to the value per acre of the seven-acre plateau immediately south of the highway the witnesses were equally at variance; the witnesses for the claimant thinking it was worth from $5,000 to $6,000 per acre (pp. 259, 286 and 290), while the witnesses for the respondent placed its value at $1,500 per acre (pp. 408 and 413).

Witnesses for the claimant thought no advantage would accrue to the claimant's property by way of enhanced value from the improved highway (pp. 194 and 251); and this, although the evidence was that the highway before expropriation was one of the worst in the County of Wentworth, and is now one of the best. On the other hand the witnesses for the respondent estimated an enhanced value of from $3 to $5 per foot on a frontage of 2,400 feet in case of subdivision of the seven-acre plateau (pp. 394 and 413), and an enhanced value of $500 per acre or 25 per cent., estimating it on an acreage basis (pp. 393 and 412).

It is in evidence that the Department paid for strips of land for highway widening similar to Mr. New's, at the rate of $1,285 per acre—about 70 per cent. of the land for that purpose was paid for at that rate per acre. Where special circumstances existed, such as an enrcoachment on an ornamental lawn adjoining a residence, a higher sum was paid.

It seems to the Board that the purpose for which this land is being taken must be borne in mind in estimating its value as well as the consequences following by way of enhancement of value of the remainder of claimant's lands, and this the Board believes will be considerable. The land is acquired, not for any private purpose, but to widen the highway from 55 feet to 86 feet, and to construct and maintain on the widened road allowance a roadway of a superior character at the cost largely of the Province. After the land is taken the residue of the claimant's land abuts directly on an improved highway and is bettered greatly, not hurt, by the operation. The strip of land taken, standing alone,

has little if any inherent value; as stated by a witness for claimant: "It would not be worth very much at all" (p. 282).

After taking all proper factors into consideration the Board has reached the conclusion that an allowance of $576, as estimated by Mr. Crompton (p. 395), would be a reasonable allowance for claim under Item No. 1.

As to Item No. 2:

This item is for $1,229.95, said to have been paid by claimant in the spring of 1922, for wages in reconstructing his plant in part. The details of payments are set out at length in Exhibit No. 9. Mr. Pollen, a contractor in a large way (p. 490), testified that this work is worth only $689, and that he would do it for that sum. Probably Mr. Pollen might, with superior appliances and better organization, be able to do what he says, but the claimant may not have been in so advantageous a position to do the work. Although the claimant's figures are nearly 100 per cent. more than Mr. Pollen's, the money is sworn to have been paid for the above purpose, and the Board does not consider that it should do otherwise than allow this item.

As to Items Nos. 3, 4 and 5:

These items may be disposed of together; they represent the work still to be done to the roadways, kiln beds and dry sheds. Mr. Pollen, the above contractor, states that the work can be done for $474 (pp. 490 and 491) and he is willing to undertake it for that sum. Mr. Dingledine testifies that this work can be done for $655 (pp. 466). The Board adopts the latter estimate with an addition of $95 to provide for the possibly less efficient labour and organization of the claimant; making for these three items $750.00.

As to Item No. 8:

Under this item a claim is made for the profit on 1,000,000 bricks which claimant says his plant was capable of turning out during a period of five weeks in the spring of 1922, when his plant was of necessity shut down while he was moving and reconstructing it in part. It is alleged that the plant was compulsorily shut down for five weeks (p. 45); that it was capable of turning out 200,000 bricks a week, and that the claimant working both machines could have made $5.00 per thousand—making his loss $5,000.

The Board has in Exhibit No. 17 a statement of the times at which the claimant's machines began working in the four seasons prior to the year 1922, and the actual count of bricks turned out week by week. The Board thinks that the maximum capacity of the machines should not be taken as the basis on which to compute the claimant's loss by the shut-down, but the average productivity of the machines under actual working conditions. Neither should any fanciful time be adopted as the starting time of the machines, but rather a time fixed with reference to the actual starting time in previous seasons.

Exhibit No. 17 shows that in the season of 1922 the machines began working —one on the 29th May and the other not until 30th June. The claim under this item implies that but for the interference of the respondent the machines would have begun work about the 24th April. Exhibit No. 17 shows that in fact the claimant began making brick in the four previous years as follows: In 1918, 18th May; in 1919, 10th May; in 1920, 7th May; in 1921, 10th June.

Further, it is to be noted that only in the year 1920 did both machines commence working at the beginning of the season; in 1918 and 1921 the second machine was not started at all, and in 1919 the second machine was not started until 2nd August. The Board concludes from this that it was the normal policy of the claimant not to operate more than one machine in the beginning of the season, and that the deferred commencement of working of the second

machine until the 30th June, in 1922, was not due to the expropriation, but was in accordance with the claimant's working policy. At all events no satisfactory explanation was given of the late start of the second machine, and it would appear that the claimant had no stronger ground for claiming damages from the respondent for stoppage of the second machine for the five weeks before 29th May, than he had to claim damages for the period between 29th May and the 30th June. The Board concludes from this that the claimant is entitled to compensation on this reference only for the lost time in respect of one machine at the beginning of the season of 1922.

Taking the earliest week-end above at which bricks were turned out—7th May, 1920—the machine began to work on 30th April; from 30th April to 29th May, when the machine began work in 1922, is four weeks, the period of interruption, and not five weeks.

The Board finds from Exhibit No. 17 that the average weekly output of one machine for the following years was:

1918	60,000 bricks.
1919	63,000 bricks.
1920	71,000 bricks.
1921	84,000 bricks.
1922	82,000 bricks.
	360,000 bricks.
grand average	72,000 bricks.

Only on five occasions in five years did one machine turn out 100,000 bricks in a week, and only once with two machines working was the maximum of 200,000 brick in one week reached. On this showing the Board does not feel warranted in allowing a greater weekly output than 80,000, or 320,000 for the four weeks.

The books of the claimant were kept on so imperfect a system that it was difficult to determine what his real profit was on his output; for instance, no charge was made for depreciation of plant, wastage of clay, or interest on his investment, which latter he estimated to be $50,000. A statement prepared by the claimant for this arbitration which charged up the above items showed a deficit for 1922 of $5,259.17—the receipts being $29,041.61, and the charges and operating costs $34,300.88—(Exhibit No. 17).

Without any charge for depreciation, wastage of clay (estimated by claimant at $1.00 per thousand of brick), and interest on investment, Exhibit No. 4 showed the following results for the following years:

1918 a loss of $1,569.00.
1919 a profit of $2,575.00.
1920 a profit of $2,369.17.
1921 a loss of $4,454.44.

At pp. 475-6 of the notes, Mr. Dingledine testified that stock brick, being the kind made by the claimant, is being gradually crowded out of the market by higher grades of brick. He thought that a profit of $2 or $3 per thousand was the usual profit on this grade of brick. In view of this evidence the Board does not feel warranted in allowing more than $3 per thousand brick which, on an output of 320,000 brick, amounts to $960.00.

Summing up the foregoing the Board awards compensation as follows:

1. Item No. 1	$576 00
2. Item No. 2	1,229 95
3. Items Nos. 3, 4 and 5	750 00
4. Item No. 6—Disallowed.	
5. Item No. 7—Disallowed.	
6. Item No. 8	960 00
Total	$3,515 95

The claimant remained in possession of the expropriated land until May, 1922, and suffered no appreciable damage until then. The Board awards him interest on the above sum from 15th May, 1922, until payment.

As the sum offered to the claimant by way of compensation was entirely inadequate, the respondent should pay the costs of the claimant on the Supreme Court scale, as between party and party, to be taxed by a taxing officer of that Court.

There will be no fee for law stamps, as if imposed it should be payable by the Department of Highways of the Province.

(Sgd.) D. M. McIntyre,
Chairman.

Dated at Toronto, the Seventeenth day of March, A.D. 1923.

Procedure File 8006. (P. 425.)

In the matter of the application of the Board of Education of the City of Hamilton, under Section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Hamilton of those portions of the Township of Barton, in the County of Wentworth, adjacent to the City of Hamilton, hereinafter described.

Jan. 10th. Approved draft Order filed and issued.

Procedure File 8007.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922", for approval of its By-Law No. 9411—to establish a Restricted Area on part of Lyndhurst Avenue and other streets.

Jan. 8th. Hearing, pursuant to appointment, 11 a.m. to 12 m., at Board's Chambers. Adjourned, pending negotiations, to 23rd inst., at 11 a.m.

Jan. 23rd. Hearing continued, pursuant to adjournment, 11 to 11.20 a.m. Adjourned *sine die.* Sir Henry Pellatt to give usual Public Notice when appointment made for further hearing. (See Reporter's Notes.) (No notice necessary if City Council amend By-law.)

April 23rd. Hearing continued, 11.30 a.m. to 12 m. Application granted. By-law approved.

April 26th. Draft Order filed and issued.

Procedure File 8008.

Application by the Waterloo-Wellington Railway Company, under section 105, Chap. 185, R.S.O. (1914), and section 3, Chap. 145, Ontario Statutes, 1922, for approval of proposed Time Table for its Bridgeport Line, and for approval of fares to be charged, all as set forth in the Schedule attached to this Order.

Jan. 12th. Hearing, pursuant to appointment, 12 m. to 1 p.m., Court House, Kitchener. Application granted (Applicant to file Schedule and agreement to keep cars heated).

Jan. 26th. Schedule filed.

Jan. 26th. Order.

PROCEDURE FILE 8017.

In the matter of the application of the Commissioners for the Telephone System of the Municipality of LaVallee for authority to increase the charge to subscribers for maintenance from $5.00 to $8.00 per annum, the said charges to be in addition to any annual instalments for principal and interest in respect of any debentures issued for the establishment or extension of the said system for which the subscribers may be liable.

Also, for authority to charge an annual rental of $19.50 to persons not being subscribers to the said system.

Mar. 7th. Hearing, pursuant to appointment, 3.30 p.m., Court House, Fort Frances.

Mar. 27th. Report of Vice-Chairman (under section 9, Chap. 186, R.S.O.) filed and adopted.

Mar. 27th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

(Seal)

March 27th, 1923.

ORDER.

Upon the application of the above-named Applicants, upon reading the Report of A. B. Ingram, Esquire, Vice-Chairman, who heard the evidence adduced on behalf of all parties, Statements of Assets and Liabilities, Receipts and Disbursements and other material filed.

The Board orders that the Applicants, The Commissioners for the Telephone System of the Municipality of LaVallee, be authorized to charge the following rates for telephone service, to take effect as from January 1st, 1923:

To Subscribers, for maintenance.....$8.00 per annum.

The said charge to be in addition to any annual instalments of principal and interest in respect of any debentures issued for the establishment or extension of the said system for which the subscribers may be liable.

To Renters.....$19.50 per annum.

And the Board further orders that the charges for telephone service levied and collected by the Applicants prior to December 31st, 1922, shall be deemed to have been lawfully levied and collected, and are hereby validated and confirmed.

And the Board makes no order for costs, save and except that the Applicants shall pay $10.00 for the law stamps required for this Order.

(Sgd.) D. M. MCINTYRE,
Chairman.

(Seal)

PROCEDURE FILE 8046. (P. 429.)

Application by The Ottawa Land Association, Ltd., under "The Planning and Development Act," for approval of plan of Lots 34 and 35, Con. 1, Ottawa Front, Township of Nepean, now in the City of Ottawa.

Jan. 19th. Hearing, pursuant to appointment, 10 a.m. to 1 p.m., Council Chamber, City Hall, Ottawa. Judgment reserved.

Feb. 7th. Judgment delivered. Plan approved.

Feb. 12th. Plan certified.

Mar. 16th. Further Hearing pursuant to appointment, 10 to 10.30 a.m., Council Chamber, City Hall, Ottawa. (Mr. Ellis authorized under section 9, chapter 186, R.S.O.) Amended plan approved.

Opinion of the Board.

The Board is of opinion that the plan propounded by the Applicants conforms to the provisions of section 8 of "The Planning and Development Act." The land shown on the plan is situate in the City of Ottawa, and a Town Planning Commission has been established in that city. This Commission has refused to approve of the plan and submits instead a plan showing the land laid out in a very different manner. It was urged by The Town Planning Commission at the hearing of the application that the plan propounded by the Applicants should be rejected, and that proposed by the Commission adopted. Unless the plan propounded is defective, and does not comply with the provisions of the Act, the Board does not consider it is bound to reject such plan merely because some other plan of the same property is presented showing the property laid out in a different manner.

The situation in regard to the plan in question is complicated by the fact that the Dominion Government has established an Improvement Commission for the City of Ottawa and its vicinity, and makes yearly large grants to this Commission for the purpose of laying out driveways, parks, etc., in Ottawa and its vicinity. The Improvement Commission approves of the plan propounded by the owners of the property in question and disapproves of the plan proposed by The Town Planning Commission. The plan propounded shows that the driveway of the Ottawa Improvement Commission is to be continued through the land laid out at a width of one hundred feet with reasonable curves. The plan proposed by The Town Planning Commission also shows the driveway but it has much more pronounced curves and turns to which the Improvement Commission objects.

At the hearing of the application the Mayor of Ottawa stated that the plan propounded by the owners was unobjectionable so far as the City was concerned with regard to sewers, and that the City Engineers thought it might be a little less expensive in this connection than the plan proposed by The Town Planning Commission.

In view of all the circumstances, especially of the objections raised by The Ottawa Improvement Commission to the plan proposed by The Town Planning Commission, the Board approves of the plan propounded by the Applicants.

(Sgd.) D. M. McIntyre,
Chairman.

(Sgd.) J. A. Ellis,
Commissioner.

Toronto, February 7th, 1923.

Procedure File 8048.

In the matter of the petition of W. H. Graham and others, under section 9 of "The Local Improvement Act," against the construction of a tarvia macadam

pavement on Waverley Street—between Elgin Street and Robert Street—in the City of Ottawa.

Jan. 26th. Hearing, pursuant to appointment, 10 to 11 a.m., Council Chamber, City Hall, Ottawa. Adjourned *sine die.*

Procedure File 8050.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9332—restricted area on Westlake and other avenues, as amended by its By-law No. 9419 eliminating that part of Westlake Avenue lying south of Danforth Avenue.

Jan. 22nd. Hearing, pursuant to appointment, 10.30 to 10.45 a.m., at Board's Chambers. Application granted—Applicant's Solicitor to draft Order.

Jan. 31st. Draft Order filed.

Feb. 1st. Order issued.

Procedure File 8051.

Application by the City of Toronto, under subsection (2b) of section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9389 repealing its By-law No. 8868 as to No. 32 Lowther Avenue.

Jan. 22nd. Hearing, pursuant to appointment, 10.30 to 10.45 a.m. at Board's Chambers. Application granted—Order to be drafted by City Solicitor.

Jan. 3rd. Draft Order filed.

Feb. 1st. Order issued.

Procedure File 8052.

In the matter of the application of Walter Hopkins, and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Hamilton of part of the Township of Barton.

Feb. 12th. Counter Petition (by A. Parmenter, *et al.*), filed.

Mar. 15th. Hearing, pursuant to appointment, 10 to 11 a.m., Council Chamber, City Hall, Hamilton. Adjourned to March 26th, 1923, at 10 a.m.

Mar. 26th. Hearing continued, 10 a.m. to 12 m. Application dismissed. A vote of the Municipal Electors may be taken and Mr. Snider to let Board know within two weeks if he desires said vote to be taken, when the Board will send him the necessary information.

June 14th. Petition herein abandoned. For new Petition see P.F. 8452.

Procedure File 8056. (P. 427.)

In the matter of the petition of D. Pierce and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the Town of Timmins of the lands described and contained in Plans M. 33, Sudbury; M. 2 and M. 44, Temiskaming; and the Moneta Public School Site, all in the Township of Tisdale.

Jan. 4th. Petition and other material filed.

Aug. 22nd. Further and amended material filed.

Nov. 13th. Further material filed—no objections to annexation.

Dec. 10th. Approved draft Order filed.

Dec. 12th. Order issued.

PROCEDURE FILE 8061.

Application by The Melrose Realty Co., Ltd., under "The Planning and Development Act," for approval of plan of part Lot 7, Con. 1, West of Yonge Street, Township of York, now partly in City of Toronto.

Jan. 5th. Application filed.

Jan. 17th. Hearing, 3 to 4.30 p.m., at Board's Chambers. Hearing concluded. Plan approved.

Jan. 19th. Plan certified.

PROCEDURE FILE 8062.

Application by The Melrose Realty Co., Ltd., under "The Planning and Development Act," for approval of plan of part Lots 7 and 8, Con. 1, West of Yonge Street, Township of York.

Jan. 5th. Application filed.

Jan. 17th. Hearing, 3 to 4.30 p.m., at Board's Chambers. Hearing concluded. Plan approved.

Jan. 19th. Plan certified.

PROCEDURE FILE 8068.

Between:

The Beckworth & Montague Rural Telephone Co., Ltd.,
Applicant,

—and—

Harold F. McLachlin,
Respondent.

(Application under section 79 of "The Ontario Telephone Act, 1918," for an Order authorizing the extension of the Applicant's telephone system for the convenience of persons desiring service, and for that purpose permitting the Applicant to attach wires to the poles of the Respondent.)

Jan. 8th. Application, etc., filed.

Jan. 19th. Hearing, pursuant to appointment, 3 to 5 p.m., Town Hall, Smiths Falls. Settled by agreement. Company to pay $20.00 to Respondent and take over his line.

PROCEDURE FILE 8070.

Application by The Hamilton, Grimsby & Beamsville Electric Railway Co., under section 250 of "The Ontario Railway Act," for approval of plan of relocation of curves of the spur line into factory of Dominion Canners, Ltd., on Maple Avenue, in the Town of Grimsby.

Jan. 9th. Application and material filed, also blue print plan No. E-912 filed.

Jan. 24th. Hearing, pursuant to appointment, 10.30 to 11.45 a.m., Court House, Hamilton. Plan to be approved if satisfactory to the Board's Engineer. Application of Dominion Canners, Ltd., for siding to be taken up when cost is ascertained. Hearing enlarged in the meantime *sine die.*

Feb. 22nd. Revised plan, Drawing E-914, in lieu of E-912, filed.

Mar. 1st. Engineer's Report filed.

Mar. 6th. Certified copy of Resolution of Council of Town of Grimsby, approving plan E-914, filed.

Mar. 6th. Plan E-914 approved and certified.

27th February, 1923.

ENGINEER'S REPORT.

The Chairman, The Ontario Railway and Municipal Board, Toronto.

Re Dominion Canners Siding at Grimsby.

SIR:—I have examined Plan No. E-914 sent to your Board by Mr. Waller, the Manager of the Hamilton, Grimsby & Beamsville Electric Railway, showing the existing curve on Main Street, Grimsby, to be removed and replaced by that of 85 feet radius shown in dotted red lines, and also one of 120 feet radius which passes through the adjoining private property and which would mean the purchase of the whole of that property and would consequently be out of the question.

Mr. Waller says in his letter accompanying this plan that he has arranged with the Dominion Canners that they shall not use freight cars of more than 36 feet in length, which would, of course, reduce the possibility of derailment or jamming on the curve of 85 feet radius which he proposes using and which appears to be the only one which will suit all the conditions.

Personally, I have been very dubious as to whether railway freight cars could be operated on a curve of that radius but have made careful inquiries among the leading railway engineers here and am informed that while that radius is just about the limit yet it is possible to operate railway freight cars singly on such a curve provided it is constructed in the best manner; that there be little or no super-elevation to the outer rail; and that the guard rail be placed far enough from the rail to prevent the wheel getting wedged between them and consequently mounting the guard, and that care be used in preventing low joints and kinks in the curve.

Since that is the opinion of these engineers, and Mr. Waller says that he can operate 36-foot cars over this curve, and appears willing to try the experiment, and as it is only used for freight, I would advise your Board to approve of the plan in question.

Yours truly,
(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8071.

Application by The Hydro-Electric Power Commission under section 250 of "The Ontario Railway Act," for approval of plan of proposed siding on the Scarborough Division of The Toronto & York Radial Railway at Stop 30.

Jan. 9th. Application and blue print plan (Drawing 106-209) filed.

Feb. 2nd. Hearing, pursuant to appointment, 10.30 a.m. to 11 a.m., at Board's Chambers. Hearing adjourned to 9th instant, at 10.30 a.m.

Feb. 9th. Hearing continued, 10.30 to 11.20 a.m. Adjourned to 23rd instant, at 10.30 a.m.

Feb. 23rd. Hearing, 10.30 a.m. to 12 m. Application granted for temporary siding subject to future arrangements with the Ontario Highways Department (See Reporter's Notes); Mr. Biggs to draft Order; Board's Engineer to report on amended plan.

Mar. 5th. Blue print plan (3581) in triplicate, filed.

June 15th. Draft Order filed.

June 28th. Order issued.

Procedure File 8075.

In the matter of the application of A. B. Fee and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the Town of Merritton of part of the Township of Grantham.

Jan. 10th. Application, petition and other material filed.

Feb. 6th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Town Hall, Merritton. Application granted. Order to be drafted by Mr. Marquis and sent to Board for approval.

Procedure File 8079.

Application by The Hydro-Electric Power Commission of Ontario, under section 250 of "The Ontario Railway Act," for approval of plan of proposed siding at Stop 26, Mimico Division of Toronto & York Radial Railway Co.

Jan. 12th. Application and blue print plan, drawing No. 106-210, filed.

Jan. 25th. Hearing, pursuant to appointment, 10.30 a.m. at Board's Chambers. Plan approved unconditionally.

Feb. 23rd. Hearing continued, 10.30 a.m. to 12 m. Application granted on consent of Ontario Department of Highways. (See Reporter's Notes.)

Mar. 15th. Plan, drawing No. 106-210, approved and certified.

Procedure File 8100.

Application by The Toronto Transportation Commission, under "The Ontario Railway Act," for approval of location and design of a convenience on property of the Commission at Queen Street and Nursewood Road.

Jan. 16th. Application and blue print, drawing No. B 2-1-2, filed.

Jan. 29th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Application allowed. Plan approved and certified

Procedure File 8103.

Between:

The Fordwich Rural Telephone Co., Ltd.

and

The Springbank Telephone Co., Ltd.,

Applicants,

—and—

The Wroxeter Rural Telephone Co., Ltd.,

Respondent.

(Application under section 83 of "The Ontario Telephone Act, 1918," for an Order prescribing the terms and conditions for interchange of service.)

Jan. 16th. Application filed.

Feb. 28th. Hearing, pursuant to appointment, 10.30 to 11.45 a.m., Town Hall, Gorrie. Terms settled by consent of both parties. Agreement to be submitted for approval.

PROCEDURE FILE 8117.

Between:

Lever Brothers, Ltd.,

Appellants,

—and—

The Corporation of the City of Toronto,

Respondent.

(Assessment Appeal—Income.)

Jan. 19th. Notice of Appeal filed.

Feb. 7th. Hearing, pursuant to appointment, 10.30 to 10.45 a.m., at Board's Chambers. Adjourned at request of Counsel to 27th instant, at 10.30 a.m., at the Board's Chambers.

Feb. 27th. Hearing continued, 10.30 to 11.10 a.m. Hearing concluded. Judgment reserved.

Mar. 14th. Judgment delivered (Appeal dismissed).

Mar. 29th. Order, in form of approved draft filed, issued.

April 18th. Appeal to Appellate Division dismissed with costs (See *Globe* of this date).

OPINION OF THE BOARD.

This is an appeal by Lever Brothers, Limited, against the decision of the learned County Judge of the County of York, confirming the assessment of the Appellant for income in the City of Toronto, made in the year 1922 for the year 1923.

The Appellant is a joint stock company, incorporated by Letters Patent under "The Ontario Companies Act," and is engaged in the business of manufacturing in the City of Toronto, and occupies and uses land for the purpose of that business. The Appellant is properly assessed for the land occupied by it, and also for business assessment in respect of its occupation and user of the land. It has been assessed also for the sum of $130,000 for income, and it is in respect of this assessment that this appeal is taken.

It appears that the Appellant has procured to be incorporated under the laws of the Province of New Brunswick, a subsidiary company, "The St. Croix Soap Company," with head office at St. Stephen in that province. All the stock in this subsidiary company is held or controlled by Lever Brothers, Limited, the Ontario Company. In the year 1922 Lever Brothers received from the St. Croix Company dividends amounting to $130,000. For this sum the appellant company has been assessed as for income not derived from the business of Lever Brothers, in respect of which the latter company is assessed for business assessment in the City of Toronto. The relevant provision of "The Assessment Act" is to be found in paragraph (b) of subsection (1) of section 11 of that Act, which reads as follows:

"(b) Every person although liable to business assessment under section 10 shall also be assessed in respect of any income not derived from the business in respect of which he is assessable under that section."

These two companies are separate and distinct entities, and each is separate and distinct from the body of its shareholders. At p. 6 of Masten and Fraser's Company Law the conclusions to be drawn from the authorities there cited on this point are summarized in these words: "A corporation is an artificial person, a mere abstraction of law. It is a distinct existence and entity—not a mere aggregation of the shareholders. A corporation is an entity, an existence

irrespective of the persons who own all the stock. The fact that one person owns the stock does not make him and the corporation one and the same person."

Mr. Lash's argument for the Appellant as reported at p. 3 of the notes of evidence is this: "Our business consists in two kinds: first of all, manufacturing soaps; secondly, manufacturing soaps through subsidiary companies. Our capital is employed directly in the manufacture of soaps at St. Croix (St. Stephen) through the ownership of the shares of the St. Croix company; our money has gone into that." The pronoun "our" here of course stands for Lever Brothers, Limited.

It seems to the Board that this argument ignores the fundamental distinction which exists between a company and its shareholders, and which is clearly stated in the foregoing citation from Masten and Fraser's work—whether the shareholders are a holding company or individuals. It follows from that distinction that the business carried on at St. Stephen is not the business of Lever Brothers, Limited, but the business of the St. Croix Soap Company. This conclusion is amply supported by some observations of Lord Halsbury, Lord Chancellor, in his judgment in the case Salomon v. Salomon & Co. (1897) A.C. at p. 31. In this case at the trial Mr. Justice Vaughan Williams had held that a "one-man" company, all the stock in which was owned or controlled by Aron Salomon, was the mere nominee of Aron Salomon, that if his nominee had been an individual the nominee could have called on Aron Salomon as his principal to indemnify him from the business liabilities, that the fact of the nominee being a company made no difference and that Aron Salomon must indemnify the company against the debts which its assets were insufficient to pay. On appeal the House of Lords reversed the judgment below, and at p. 31 of the report of his reasons the Lord Chancellor said:

"I observe that the learned Judge (Vaughan Williams, J.) held that the business was Mr. Salomon's business, and no one else's, and that he chose to employ as agent a limited company; and he proceeded to argue that he was employing that limited company as agent, and that he was bound to indemnify that agent (the company). I confess it seems to me that that very learned judge becomes involved by this argument in a very singular contradiction. Either the limited company was a legal entity, or it was not. If it was, the business belonged to it and not to Mr. Salomon. If it was not, etc."

If the business producing the dividends was the business of the St. Croix Soap Company, and not the business of Lever Brothers, Limited, which follows from the above reasoning, then the fruits of that business, the surplus earnings of the business, belonged to the former and not to the latter company. Only after a declaration of dividends out of those surplus earnings (a transaction solely in the power of the subsidiary company) did Lever Brothers, Limited, become entitled to share in those earnings, and the dividends came to the latter company as income not derived from the business of the company subject to business assessment in Toronto, but from the St. Croix Soap Company; and as such income it is assessable under paragraph (b) above cited.

The appeal will be dismissed, without costs to either party, but the Appellant will pay $10.00 in Law Stamps on the Order.

(Sgd.) D. M. McIntyre,
Chairman.

Dated at Toronto, the 14th day of March, A.D. 1923.

PROCEDURE FILE 8118.

Between:

John Northway & Son, Ltd.,

Appellant,

—and—

The Corporation of the City of Toronto,

Respondent.

(Assessment Appeal—Income.)

Jan. 19th. Notice of Appeal filed.

Feb. 7th. Hearing, pursuant to appointment, 10.30 a.m. to 12.45 p.m., at Board's Chambers. Judgment reserved.

Mar. 14th. Judgment delivered. (Appeal allowed in part.)

Mar. 29th. Order in form of approved draft filed and issued.

May 12th. Appeal allowed by Appellate Division. (See "Globe" of this date; also 24 O.W.N., 302.)

OPINION OF THE BOARD.

Admittedly this appeal turns on the proper interpretation of paragraph (b) of section 11, subsection (1) of "The Assessment Act," and its application to the facts of this case.

The Appellant company is incorporated as a joint stock company under Letters Patent of Ontario to carry on, and does carry on, the businesses of manufacturer of garments, and also as authorized by its charter sells its manufactured product both by wholesale and retail. Prior to the year 1900 when incorporation was obtained, the business was carried on as a partnership. For the purpose of its business it owns and occupies two premises in the City of Toronto, one on Wellington Street, where the manufacturing and sale by wholesale are carried on, and the other on Yonge Street where the retail branch is housed. In respect of both these premises the Appellant is assessable for business assessment, and has been so assessed for the year 1923.

By supplementary Letters Patent issued in 1907 the appellant company was authorized amongst other things to invest in stocks of subsidiary companies carrying on businesses similar or complementary to the business of the Appellant. Availing itself of this authorization the appellant company lawfully acquired and now holds stock in the Canadian Dyers—the latter being in fact a subsidiary of the Appellant, and engaged in the dying of fabrics of the kind used by the Appellant in the manufacture of garments.

Moneys as received in the several departments of the Appellant's business, including dividends and interest on investments of the reserve fund, are deposited in one common account—that is to say, though the moneys may be and indeed are deposited in more than one bank, all the moneys so received are treated as one fund available for any of the purposes of the business.

It is in evidence that some years ago the Appellant adopted and carried into practice the policy of setting aside from year to year out of surplus earnings, being undivided profits, a reserve fund. Indeed the reserve fund was constituted before the incorporation of the appellant company and maintained ever since. This reserve fund was not, except as hereafter mentioned, physically segregated from the other current funds of the Appellant, nor was it carried in a special account separate from the general moneys of the Appellant. One result of this is that at any point of time to determine the amount of the reserve fund required

a computation in which was taken into account the credits and moneys on hand, and the debts and obligations of the Appellant. Besides carrying portions of this reserve fund on deposit at the company's bankers at a low rate of interest, the officers of the company invested it in part in bonds, in part in certain dividend-paying stocks, and in part in call loans to brokers secured by satisfactory collateral. It is not suggested that any speculative element entered into these transactions; the sole object being to obtain a slightly higher return on the moneys invested while keeping them in a form quickly convertible into cash if immediately required for use in the business.

The purpose underlying this policy was explained by the officers of the company to be generally to stabilize the business and enable it to withstand the fluctuations and the losses unavoidable in trade and manufacture; and especially in a business such as theirs depending on fashions changing from season to season. Besides this the reserve fund was intended to serve two specific ends: to provide a fund to pay off a mortgage on the Wellington Street property amounting to $250,000 which matures in a few years, and to build a new retail store on the Appellant's present business site on Yonge Street at an estimated cost of $500,000.

As required by law the Appellant made an income return—Form No. 2—as required by section 18 of "The Assessment Act." The relevant parts of that return are as follows:

"3. Income, wheresoever derived, from interest on bonds, debentures, stocks, shares, or other securities in mercantile or manufacturing businesses carried on within Ontario.....	$3,000 00
"4. Income, wheresoever derived, from stocks of insurance, loan, land, gas, electric light, telephone, telegraph, street and steam railway companies, banks and other stocks..... (Do not include income from Ontario Mining Stocks.)	6,570 03
"5. Income, wheresoever derived, from bonds and debentures (not already included in Item 3), personal securities, including Dominion War and Victory Bonds, and from stocks or shares in industrial companies situated outside of Ontario.....	24,832 05
"6. Income from money loaned or invested on any other security or without security.....	3,193 21
"7. Income from bank deposits.....	7,427 58."

Item 3 represents dividends received by the Appellant from its subsidiary Canadian Dyers.

Items 4 and 5 represent interest and dividends from bonds and stocks in which the Appellant's reserve fund had in part been invested from time to time.

Item 6 represents interest received on reserve fund invested in part in call loans.

Item 7 represents bank interest on portions of the reserve fund on deposit.

Upon these facts the Respondent says that these several parcels of income, aggregating $45,022.87, do not constitute income derived from the business in respect of which the Appellant is assessed for business assessment (being the business carried on, on the Wellington Street and Yonge Street premises as above mentioned), and as such are assessable as income under section 11, subsection (1) paragraph (b) of "The Assessment Act." The Appellant contends that upon these facts, and upon the proper construction of this Statute the said moneys are not assessable as income.

The Board is of the opinion that the contention of the Appellant is well founded, except as to Item 3.

Dealing first with Items 4, 5, 6 and 7:

As to the right of the company to deal with its surplus earnings as it did—namely, to impress it with the character of a reserve fund—there is no doubt. Neither can there be any doubt that the company might invest the moneys constituting the reserve fund as it saw fit. As set out in the head note of the case, Burland v. Earle (1902), A.C. 83, "A company formed by letters patent under the Canadian Act, 27 and 28 Vic., chapter 23, is not bound to divide all its profits on each occasion amongst its shareholders. It can legally reserve any portion thereof at its own discretion, and a Court has no jurisdiction to regulate it. Whether the undivided portion is retained to credit of profit and loss or carried to credit of a reserve, it may lawfully, in the absence of any express power, be invested in such securities as the Directors may select subject to the control of a general meeting, but not restricted to such investments as trustees are authorized to make." It seems to the Board that the appellant company had under its letters patent similar powers in dealing with its surplus earnings. In the exercise of these powers the Appellant chose to invest its reserve fund in securities of the kind set out in paragraphs Nos. 4, 5, 6 and 7 of the income return above abstracted, and the corpus invested forming part of the funds of the business of the Appellant, all increase of that corpus formed also part of the funds until otherwise determined by the appellant company.

The case, Massey-Harris and Toronto, 45 O.L.R. 353, has no application since that case was argued and determined on the assumption that the income in question there was not derived from the main business of the Appellant, but from transactions apart from it. Here the main issue is as to whether the income sought to be assessed is or is not derived from the business in respect of which the Appellant is assessable for business assessment; if it is, the income is not assessable; if it is not, the income is assessable. The Board has reached the conclusion that this income is derived from the business of the Appellant in respect of which it is subject to a business assessment, and therefore that this income does not fall within the purview of paragraph (b) of subsection (1) of section 11, and is not assessable.

As to Item 3 the Board is of opinion that different considerations apply.

It seems to the Board that it is one thing for the Appellant to impress upon its surplus earnings as a trust the character of a reserve fund and, for the sake of a higher interest return than a bank offers, to invest it temporarily in interest or dividend-bearing securities, and quite another thing for the Appellant to launch a subsidiary company and invest surplus earnings of the parent company permanently in such a venture. The distinction arises out of the inherent properties in law of a joint stock company. The Board has recently considered an assessment appeal (*re* Lever Brothers, Limited, and Toronto) in which the facts were similar to those giving rise to Item 3 in this case, and the reasons given by the Board in that case may be paraphrased here.

These two companies—the parent company and the subsidiary company—are separate and distinct entities, and each is separate and distinct from the body of its shareholders. At p. 6 of Masten & Fraser's Company Law the conclusions to be drawn from the authorities there cited on this point are summarized in these words:

"A corporation is an artificial person, a mere abstraction of law. It is a distinct existence and entity—not a mere aggregation of the shareholders. A corporation is an entity, an existence irrespective of the persons who own all the stock. The fact that one person owns the stock does not make him and the company one and the same person."

The argument for the Appellant both in Lever Brothers and in this case as to Item 3 is based on an assumption of the essential identity of the two companies. The business of the subsidiary company is viewed as the business of the parent company. Now it seems to the Board that this argument ignores the fundamental distinction which exists between a company and its shareholders, and which is clearly stated in the foregoing citation from Masten & Fraser's work—whether the shareholders are a holding company or individuals. It follows from that distinction that the business carried on by the subsidiary company is not the business of John Northway & Company, but is the business of Canadian Dyers. This conclusion is amply supported by some observations of Lord Halsbury, Lord Chancellor, in his judgment in Salomon v. Salomon & Co. (1897) A.C. at p. 31. In this case at the trial Mr. Justice Vaughan Williams had held that a "one-man" company, all the stock in which was owned or controlled by Aron Salomon, was the mere nominee of Aron Salomon, that if his nominee had been an individual the nominee could have called on Aron Salomon as his principal to indemnify him from the business liabilities, that the fact of the nominee being a company made no difference, and that Aron Salomon must indemnify the company against the debts which its assets were insufficient to pay. On appeal the House of Lords reversed the judgment below, and at p. 31 of the report of his reasons the Lord Chancellor says:

"I observe that the learned Judge (Vaughan Williams, J.) held that the business was Mr. Salomon's business and no one else's, and that he chose to employ as agent a limited company; and he proceeded to argue that he was employing that limited company as agent, and that he was bound to indemnify that agent (the company). I confess it seems to me that that very learned Judge becomes involved by this argument in a very singular contradiction. Either the limited company was a legal entity or it was not. If it was, the business belonged to it and not to Mr. Salomon. If it was not, etc."

If the business producing the dividends was the business of Canadian Dyers, and not the business of John Northway & Company, which follows from the above reasoning, then the surplus earnings of the business belonged to the former and not to the latter company. Only after a declaration of dividends out of those surplus earnings (a transaction solely in the power of the subsidiary company) did John Northway & Company become entitled to share in those earnings, and the dividends came to the latter company as income, not derived from its business, but from the business of Canadian Dyers and as such income is properly assessable under paragraph (b) above cited.

The Appeal will be allowed as to Items 4, 5, 6 and 7, and the assessment of the Appellant in respect of them will be stricken off the assessment roll; the Appeal as to Item 3 will be dismissed.

There will be no costs to either party, but as success was divided each party will pay $5.00 in Law Stamps.

(Sgd.) D. M. McIntyre,
Chairman.

Dated at Toronto, the 14th day of March, A.D. 1923.

PROCEDURE FILE 8138.

Application by The Pelmo Realty Co., Ltd., Owner, under "The Planning and Development Act," for approval of plan of parts Lots 8 and 9, Con. V, West of Yonge Street, in the Township of North York.

Jan. 25th. Application and material filed.

Feb. 2nd. Hearing, pursuant to appointment, 11 a.m. to 12.50 p.m. Plan approved and certified.

Procedure File 8139.

Application by The Pelmo Realty Co., Ltd., Owner, under "The Planning and Development Act," for approval of plan of part Lot 10, Con. V, west of Yonge Street, in Township North York.

Jan. 25th. Application and material filed.

Feb. 2nd. Hearing, pursuant to appointment, 11 a.m. to 12.50 p.m. Plan approved and certified.

Procedure File 8147.

Application by The Northview Land Co., Ltd., Owner, under "The Planning and Development Act," for approval of plan of part parcel 1121, East York, being part Lot 11, Con. I, east of Yonge Street, Township North York, County York.

Jan. 30th. Application and material filed.

Feb. 14th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Plan approved and certified.

Procedure File 8149.

In the matter of the application of The Orono Telephone Company, Limited, for authority to charge the following rates for service:

To Shareholders. .....$10.00 per annum.
To Non-shareholders. .....$18.00 per annum.

The foregoing charges to be subject to a discount, in the case of Shareholders, at the rate of $2.00 per annum; and in the case of Non-shareholders, at the rate of $3.00 per annum, for payment within thirty days from the date of rendering the accounts for same.

Jan. 31st. Application filed.

April 18th. Hearing, pursuant to appointment, 9.30 to 11 a.m., Town Hall, Orono.

April 28th. Report of Vice-Chairman (under section 9, chapter 186, R.S.O.) recommending granting of application, filed and adopted.

April 28th. Order.

Report.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) D. M. McIntyre,
Chairman.

Toronto, April 28th, 1923.

April 28th, 1923.

Order.

Upon the application of the above-named Applicant, upon reading the report of Donald M. McIntyre, Esquire, K.C., Chairman of the Board, who heard the evidence adduced on behalf of all parties, statements of Assets and Liabilities, Receipts and Disbursements and other material filed.

The Board orders, subject to the several conditions prescribed in this Order, that the Applicant, The Orono Telephone Company, Limited, be authorized to charge the following rates for telephone service, to take effect as from April 1st, 1923:

To Shareholders.....$10.00 per annum.
To Non-shareholders.....$18.00 per annum.

The foregoing charges to be subject to a discount, in the case of Shareholders, at the rate of $2.00 per annum; and in the case of Non-shareholders, at the rate of $3.00 per annum, for payment within thirty days from the date of rendering the accounts for such charges.

And the Board further orders:

1. That for the purpose of providing a fund to meet the cost of the renewal of its plant and equipment, the Applicant shall on December 31st, 1923, and each year thereafter, set aside out of its earnings a sum equal to not less than five per cent. of the total value of the plant and equipment used in the Applicant's business on December 31st in each such year. The fund so provided shall, unless otherwise authorized by the Board, be applied exclusively to the cost of renewing such portion of the said plant and equipment as may from time to time be rendered necessary by depreciation or obsolescence, and after deducting therefrom such amounts as may have been so expended in any one year the residual amount shall be deposited in a chartered bank at interest, and the money so deposited may, with the approval of the Board, be invested in interest-bearing securities, and all interest accruing from any portion of the depreciation fund so deposited or invested shall from time to time be carried to the credit of the said fund.

2. That the Applicant shall on or before the 15th day of January in each year furnish the Board with a report setting forth: (a) the total amount standing at the credit of the fund referred to in clause 1 hereof on the 31st day of December in the preceding year; (b) the amount of such fund which has been temporarily used in the purchase of securities; (c) the names and values of the securities so purchased, together with (d) a certified statement from the bank in which the fund is deposited showing the amount standing at the credit of such fund on the last-named date.

3. That the Applicant shall keep separate records of all expenditures upon the construction, operation, maintenance and renewal of its plant and equipment, and shall each year furnish its shareholders with an annual report and balance sheet in the form approved of by this Board as set forth on pages 160 to 163. of "Telephone Systems, 1922."

And the Board makes no Order for costs, save and except that the Applicant shall pay $10.00 for the Law Stamps required for this Order.

(Sgd.) D. M. McIntyre,
(Seal) *Chairman.*

Procedure File 8151.

Application by Angelina Duncan Rowntree, Owner, under "The Planning and Development Act," for approval of plan of parts Lots 22, 23 and 24, Con. VII, west of Yonge Street, Township North York, County of York.

Feb. 2nd. Application and material filed.

Feb. 16th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Rowntree Mill Road to be widened at west end, near bridge, to a

better alignment. Plan will be approved when amended accordingly to satisfaction of Board. (See Reporter's Notes.)

Feb. 26th. Amended plan filed.

Feb. 26th. Amended plan approved and certified.

Procedure File 8162.

In the matter of the application of the Corporation of the Town of Weston, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the said Town of part of Lot 9, Con. V, west of Yonge Street, Township of North York, County of York.

Feb. 5th. Application, Surveyor's Description and Resolution of Town Council filed.

Feb. 26th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Application granted. Order to be drafted by Solicitor for Applicant and submitted to Mr. Urquhart.

May 2nd. Approved draft Order filed and issued.

Procedure File 8164.

Application by the Township of Nepean, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 961—Restricted area "Highland Park."

Feb. 8th. Application and copy of By-law filed.

Mar. 2nd. Hearing pursuant to appointment, 10 to 10.45 a.m., at Court House, Ottawa.

Mar. 6th. Report of Mr. Commissioner Ellis, under section 9, chapter 186, R.S.O., filed and adopted.

Mar. 26th. Amending By-law No. 963 filed as directed.

Mar. 26th. Order, granting application, issued.

Report of Commissioner Ellis.

Upon the Hearing no objection was raised to the principles of the proposed By-law. A suggestion was made by one of the parties appearing that the latter part of clause 1 of the proposed By-law should be amended to include dentist as well as "qualified medical practitioner." I stated that this was a matter which might properly be determined by the Municipal Council, and that if the Council chose to amend the By-law in this respect there would be no objection so far as the Board is concerned.

I recommend that the By-law be approved provided the words "No building within the said area shall after commencement of the construction thereof remain unfinished for a longer period than two (2) years from the date of commencement of such construction and" in clause 3b be struck out. The provisions of section 399a of "The Consolidated Municipal Act, 1922," do not give such a power.

The Municipal Council is to amend the By-law in this respect and at the same time will consider the question of including a dentist in Clause 1 of the By-law.

(Sgd.) J. A. Ellis,
Commissioner.

Dated at Toronto, this 6th day of March, A.D. 1923.

PROCEDURE FILE 8168.

Between:

The Rainy River International Telephone Co., Ltd.,
Applicant,

—and—

The Town of Fort Frances.

(Application under section 83 of "The Ontario Telephone Act, 1918," for restoration of connection between telephone systems of Applicant and Respondent.)

Feb. 10th. Application and material filed.

Mar. 8th. Hearing, 8.30 to 9.30 p.m., Town Hall, Rainy River. Line to be reconnected and put into serviceable condition in thirty days.

PROCEDURE FILE 8175.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of Don Siding—Toronto & York Radial Railway (Metropolitan Division) at York Mills.

Feb. 13th. Application and blue print, drawing No. 106-211, filed.

Feb. 23rd. Hearing, pursuant to appointment, 10.30 a.m. to 12 m., at Board's Chambers. Application granted on consent of Ontario Department of Highways. (See Reporter's Notes.)

PROCEDURE FILE 8176.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of Morgan's siding—Toronto & York Radial Railway (Metropolitan Division).

Feb. 13th. Application and blue print, drawing No. 106-213, filed.

Feb. 23rd. Hearing, pursuant to appointment, 10.30 a.m. to 12 m., at Board's Chambers. Application granted on consent of Ontario Department of Highways. (See Reporter's Notes.)

PROCEDURE FILE 8183.

Application by Arthur J. Barton, Owner, under "The Planning and Development Act," for approval of plan of part Lot 4, Con. V, west of Yonge Street, and Lots "D" and "E," registered plan No. 500, Township York, Town of Weston, County of York.

Feb. 17th. Application and material filed.

Feb. 26th. Hearing, pursuant to appointment, 10.30 to 11 a.m., at Board's Chambers. Plan approved—to be certified on letter from City Solicitor that one house per Lot Agreement (except as to Weston Road Lots), completed to his satisfaction.

PROCEDURE FILE 8189.

In the matter of the application of The South Malahide Telephone Company, Limited, for the approval of the following annual charges for local service in the Town of Aylmer:

To Shareholders:

	Business.	Residence.
For Individual Line Service	$20 00	$16 00
For 2-Party Line Service	18 00	14 00
For 4-Party Line Service	13 00	13 00

To Non-Shareholders:

	Business.	Residence.
For Individual Line Service	$27 00	$21 00
For 2-Party Line Service	22 00	19 00
For 4-Party Line Service	18 00	18 00

Feb. 19th. Application and material filed.

April 20th. Hearing, pursuant to appointment, 9.30 to 10.30 a.m., Town Hall, Aylmer.

April 28th. Report of Vice-Chairman (under section 9, chapter 186, R.S.O.) recommending approval of application, filed and adopted.

April 28th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

Toronto, April 28th, 1923.

PROCEDURE FILE 8210.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9495—to prohibit the use of land or the erection or use of buildings on either side of Heath Street West for any other purpose than that of a detached private residence.

Mar. 3rd. Application and certified copy of By-law filed.

Mar. 20th. Hearing, pursuant to appointment, 11 to 11.20 a.m., at Board's Chambers. Application granted. Applicant's solicitor to draft Order.

Mar. 22nd. Draft Order filed.

Mar. 22nd. Order issued.

PROCEDURE FILE 8214.

In the matter of the application of The South Malahide Telephone Company, Limited, under section 86 of "The Ontario Telephone Act, 1918," for the approval of an Agreement providing for the sale by The Bell Telephone Company of Canada, Limited, of its local telephone plant and equipment in the Town of Aylmer, to the Applicant.

Mar. 5th. Application filed.

April 20th. Hearing, 10.30 to 11 a.m., Town Hall, Aylmer.

April 26th. Report of Vice-Chairman (under section 9, chapter 186, R.S.O.) recommending approval, filed and adopted.

April 26th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

Toronto, April 26th, 1923.

April 26th, 1923.

ORDER.

Upon the application of the above-named Applicant, upon reading the said Application, the report of A. B. Ingram, Esquire, Vice-Chairman of the Board, who heard the evidence adduced on behalf of all parties, copy of Agreement of Sale dated the 14th day of December, A.D. 1922, and other material filed.

The Board orders, pursuant to section 86 of "The Ontario Telephone Act, 1918," that the Agreement of Sale dated the 14th day of December, A.D. 1922, providing for the sale by The Bell Telephone Company of Canada, Limited, of its local telephone plant and equipment situate in the Town of Aylmer, in the County of Elgin, to the South Malahide Telephone Company, Limited, be and the same is hereby approved.

And the Board makes no Order for costs, save and except that the Applicant shall pay $5.00 for the Law Stamps required for this Order.

(Sgd.) D. M. McINTYRE,
Chairman.

(Seal)

PROCEDURE FILE 8217.

Between:

The South Malahide Telephone Co., Ltd.,
Applicant.

—and—

The Houghton & Bayham Telephone Co., Ltd.,
Respondent.

(Application under section 82 of "The Ontario Telephone Act, 1918," for an Order prescribing the terms for interchange of telephone service and for switchboard operation at Port Burwell.

Mar. 7th. Application and Memorandum of Agreement filed.

April 20th. Hearing, pursuant to appointment, 10.30 to 11.30 a.m., Town Hall, Aylmer. Adjourned, pending settlement.

June 29th. Agreement.

July 11th. Order.

MEMORANDUM OF AGREEMENT made the 29th day of June, One Thousand Nine Hundred and Twenty-three.

Between:

The South Malahide Telephone Company, Limited, hereinafter called the "South Malahide" Company,
of the first part,

—and—

The Houghton and Bayham Telephone Company, Limited, hereinafter called the "Houghton and Bayham" company,
of the second part.

Whereas the parties hereto are the joint owners of the central office plant and equipment located in the Village of Port Burwell.

And whereas it is desirable that the said parties provide for the joint operation of the said central office, and for the interchange of telephone conversations between their respective systems and for long distance communication over the lines of the Bell Telephone Company of Canada.

Now therefore this Agreement witnesseth:

That in consideration of the mutual promises and agreements hereinafter contained, the parties hereto agree as follows:

1. That each party shall pay one-half of the total cost of operating the central office in the Village of Port Burwell, including operators' wages, maintenance, rent, heat, light, etc.

2. A continuous service day and night (holidays and Sundays included) shall be furnished at the said office; provided, however, that between the hours of 10 p.m. and 5 a.m. such service shall be limited to long-distance business and emergency calls for medical, veterinary or police aid, and in case of fire.

3. One-half of the amount received by the "South Malahide" Company from The Bell Telephone Company of Canada as commission upon long distance business originating upon the respective systems of the parties hereto and transmitted through the central office at Port Burwell, shall accrue to the "Houghton and Bayham" Company.

4. The "South Malahide" Company shall for the purpose of carrying into effect the provisions of the preceding clause pay to the "Houghton and Bayham" Company, on or before the twentieth day of each month, a sum equal to one-half of the amount payable to the first-named company by The Bell Telephone Company of Canada as commission in respect of long distance business originating upon the system of either party hereto at Port Burwell, as provided in its connecting agreement with the said first-named company.

5. In the event of either party failing to agree as to the amount due in any month to the "Houghton and Bayham" Company as provided in the preceding clause, the said company or its representative shall have the right to inspect the original statement of business interchanged during any such month as furnished by The Bell Telephone Company of Canada to the "South Malahide" Company, and an adjustment shall be made in accordance with such statement.

6. Each month a statement of the long distance business originating on the system of the "Houghton and Bayham" Company and transmitted over the lines of The Bell Telephone Company of Canada during the preceding month shall be furnished by the "South Malahide" Company to the "Houghton and Bayham" Company, and upon receipt of such statement the last-named company shall pay to the "South Malahide" Company the amount due for tolls in respect of such long distance business without any deduction therefrom.

7. Each party hereto shall collect all tolls for long distance business under this Agreement originating on its system, and the "Houghton and Bayham" Company shall be responsible to the "South Malahide "Company for payment of all amounts due from its subscribers in respect of such business originating upon the system of the "Houghton and Bayham" Company.

8. All accounts for long distance business originating on the systems of the parties hereto shall be rendered to the subscribers and be due and payable monthly, and in the event of failure to pay any such account within sixty days from the date thereof, long distance calls shall not be accepted from the subscriber in default until payment in full is made.

9. The "Houghton and Bayham" Company shall pay to the "South Malahide" Company the sum of Forty-five dollars ($45.00) for one-half interest in the

Booth and Public Pay Station in the Commercial Hotel, Port Burwell, which amount shall include the cost of installing the said station.

10. This Agreement shall continue for a term of one year from the first day of January, 1923, and in the absence of written notice to be given by either party to the other thirty days prior to the expiration of such term, shall continue and remain in force from year to year thereafter until cancelled by written notice to be given by either party to the other at least thirty days prior to the expiration of any yearly period.

In witness whereof the parties hereto have executed these presents.

THE SOUTH MALAHIDE TELEPHONE CO., LTD.,

(Seal)

(Sgd.) D. McCALDIE, President.
(Sgd.) ADDISON TURRILL, Secretary.

THE HOUGHTON & BAYHAM TELEPHONE CO., LTD.,

(Seal)

(Sgd.) R. McLEAN, President.
(Sgd.) W. V. STEVENSON, Secretary

Executed in the presence of
WATSON PARK.

PROCEDURE FILE 8220.

Application by the Town of Sandwich, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 1122, Restricted area on Askin Avenue, between Fanchette Street and London Street.

Mar. 9th. Application and material filed.

April 10th. Hearing, pursuant to appointment, 10.30 to 11.30 a.m., Town Hall, Sandwich. Application granted. By-law approved except as to lot on which Mr. Banwell has already commenced construction of two-storey building.

April 26th. Approved draft Order filed.

April 26th. Order issued.

PROCEDURE FILE 8226.

Application by the Township of Gloucester, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 6 (1922), Restricted Area in Police Village of Rockliffe Park.

Mar. 12th. Application and material filed.

Dec. 4th. New By-law No. 23 (1923), filed.

Dec. 24th. Hearing, pursuant to appointment, 10 a.m., Court House, Ottawa. (Mr. Commissioner Ellis will report to Board under section 9, chap. 186, R.S.O.)

PROCEDURE FILE 8238. (P. 431).

Application by the Township of North York, under 6 Geo. V, c. 100 and amending Acts, and c. 140, 12-13 Geo. V, for approval of its proposed By-law No. ——, to authorize the construction, maintenance and operation of a system of waterworks in defined sections or areas of the said township (Area No. 1).

Mar. 16th. Application and copy of proposed By-law filed.

April 17th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. By-law to be amended as directed by Board. Surveyor's Certificate verifying description of area to be filed. Application granted. Applicant's Solicitor to draft Order. (See Reporter's Notes.)

May 5th. Draft Order filed.

May 5th. Order issued.

Procedure File 8245.

Application by W. J. McCallum, owner, under "The Planning and Development Act," for approval of Plan of part of Lot "G," Con. 1, fronting Lake Ontario, Town of Mimico, County of York.

Mar. 17th. Application and material filed.

April 4th. Hearing, pursuant to appointment, 10.30 to 11 a.m. Plan not approved—should be amended and arrangements made to show proper access to Toronto & Hamilton Highway. (See Reporter's Notes.) Hearing adjourned *sine die* pending negotiations.

May 18th. Amended plan filed.

June 5th. Hearing, pursuant to appointment, 10.30 to 11.30 a.m., at Board's Chambers. "Mrs. Allan strip" to be conveyed for highway purposes. Alternative plan not approved. Original plan to be amended (by colours and words) ownership of strips by Radial Railway and Toronto & Hamilton Highway Commission. (See Reporter's Notes.) Draft Order to be submitted to Hydro-Electric Power Commission and Toronto & Hamilton Highway Commission and Town of Mimico for approval.

June 20th. Approved draft Order filed and issued.

Procedure File 8249.

Application by the City of Ottawa, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its proposed By-law 5519, Restricted Area on Second Avenue, between Bank and Percy Streets.

Mar. 21st. Application and copy of proposed By-law filed.

May 10th. Copy of By-law 5519 filed.

June 8th. Hearing, pursuant to appointment, 10 a.m.; 10.15 to 10.30 a.m., Council Chamber, City Hall, Ottawa. (Mr. Commissioner Ellis reported to Board, under sec. 9, chap. 186, R.S.O., recommending that By-law be approved.)

June 18th. Draft Order filed.

June 18th. Order issued.

Procedure File 8254.

Between:

The Parry Sound Lumber Co., Ltd.,

Appellant,

—and—

The Corporation of the Town of Parry Sound,

Respondent.

(Assessment Appeal.)

Mar. 26th. Notice of Appeal filed.

June 28th. Hearing, 10.30 a.m., at Board's Chambers, pursuant to appointment. Mr. Worrell not objecting, Hearing adjourned *sine die* on request of Respondent. (No witnesses attended.)

Sept. 12th. Hearing, pursuant to adjournment, 11 a.m. to 1.45 p.m., at Board's Chambers. Judgment reserved. (See Reporter's Notes.)

Sept. 27th. Judgment delivered dismissing appeal.

Oct. 12th. Approved draft Order filed.

Oct. 19th. Order issued.

Opinion of the Board.

In the matter of appeal from the Judgment of the District Judge of the District of Parry Sound, in the assessment of the lands in question.

This is an appeal by the above-named Appellant from the decision of His Honour, the Judge of the District of Parry Sound, in assessment of the "Property between Great North Road and Water of the Seguin River, and Bay Seguin Bridge to Parry Sound Road," at Fifteen Thousand Dollars, and of the "Water Lot and Mill Block D," at Eight Thousand Six Hundred and Seventy-five Dollars, it being alleged by the Appellant that the assessments are disproportionate and too high; that there are changed conditions, and they are conditions that should operate for a reduction of the assessment.

Last year an appeal was entered against the assessment of these properties and, after a very patient and exhaustive hearing by the three members of the Board, taking part of two days, judgment was rendered reducing the assessment of the first-named property from Twenty-five Thousand Dollars to Fifteen Thousand Dollars.

"Water Lot and Mill Block D" was then assessed at Twenty-nine Thousand Dollars, and reduced to Fifteen Thousand Dollars. Part of this latter property has been assessed against the Appellant at Four Thousand and Fifty Dollars, and another part is now assessed to other parties at Two Thousand Two Hundred and Seventy-five Dollars, which, together with the above-named assessment appealed from of Eight Thousand Six Hundred and Seventy-five Dollars, makes the assessment of Fifteen Thousand Dollars, as fixed by the Board in February, 1922.

Another contention raised by counsel for the Appellant was that the assessment on the land included the buildings thereon. In both the appeals to the Board of last year and this year the land and the buildings were assessed separately, and both appeals to the Board were against the assessment of the land only.

The Order of the Board, dated the 10th day of February, A.D. 1922, dealt only with the assessments of the land, and it would appear that the buildings were properly assessed separately from the land.

The Board, after hearing the evidence and arguments on behalf of the Appellant and the Respondent, and having carefully reviewed the transcribed notes of the evidence and the exhibits in connection therewith, is of opinion that the evidence as given is insufficient to warrant the Board in interfering with the Judgment given by His Honour Judge Powell on the 2nd day of March, A.D. 1923, concerning the matters in question, and which are the subject of appeal in this case. The appeal therefore will be dismissed.

There will be no costs to either party, but the Appellant will pay $10.00 in law stamps on the Order.

(Sgd.) A. B. Ingram,
Vice-Chairman.

Dated at Toronto, the 27th day of September, A.D. 1923.

PROCEDURE FILE 8255.

Application by The Toronto Transportation Commission, under "The Ontario Railway Act," for approval of proposed alteration of 13 "Civic" Cars.

Mar. 26th. Application and blue print plan—Drawing No. F. 1631 filed.

June 20th. Hearing, pursuant to arrangement, 10.30 a.m. to 1.30 p.m., at Board's Chambers. Applicants to furnish the Board and Mr. Gibbons with list of times and routes of proposed operation; and operating test to be made under Board's observation as to double-truck one-man cars. Member of Board and Engineer to observe operation other places. (See Reporter's Notes.)

Mr. Ingram, Vice-Chairman, accompanied by Mr. Crosland, the Board's Railway Inspector, made an inspection in July of the operation of the Cleveland, Detroit, Jackson, Toledo and Buffalo Railways. Mr. Ingram also, in October, observed operation of railways in Philadelphia and New York.

PROCEDURE FILE 8257.

In the matter of the application of Thomas Young, under section 21a of "The Consolidated Municipal Act, 1922," for detachment of his farm lands from the Town of Durham.

Mar. 29th. Application filed.

Oct. 31st. Hearing, pursuant to appointment, 10 a.m. to 12.30 p.m., at Town Hall, Durham. Adjourned *sine die* pending adjustment of taxes, etc., between Town of Durham and Township of Glenelg, when Order will be issued.

PROCEDURE FILE 8258.

Application under section 7 of "The Ontario Telephone Act, 1918," for removal of name of E. J. Stevens from Petition praying for the establishment of a telephone system by the Municipality of Belmont and Methuen.

Mar. 29th. Application, etc., filed.

April 12th. Hearing, pursuant to appointment, 1.15 to 2.45 p.m., Town Hall, Havelock.

April 19th. Report of Chairman (under sec. 9, c. 186, R.S.O.) recommending refusal of application, filed and adopted.

April 19th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) D. M. McINTYRE,
Chairman.

Toronto, April 19th, 1923.

April 19th, 1923.

ORDER.

Upon the application of the above-named Applicant, in the presence of the Applicant and Respondents, and upon reading the Report of Donald M. McIntyre, Esquire, K.C., Chairman of the Board, who heard the evidence adduced on behalf of the Applicant and Respondents.

The Board orders that the application of the Applicant, E. J. Stevens, for the removal of his signature from a petition to the Council of the Municipality

of Belmont and Methuen, praying for the establishment of a telephone system under the provisions of Part II of "The Ontario Telephone Act, 1918," be and the same is hereby dismissed.

And the Board makes no Order for costs or for law stamps in connection with this Order.

(Sgd.) D. M. McIntyre,
Chairman.

(Seal)

Procedure File 8265.

Application by the Township of Etobicoke, under 8 Geo. V, Chapter 81, section 6, for approval of its By-law No. 1414—Designation of Water Area No. 5, and expenditure of $90,500 for construction of water works system.

April 3rd. Application and material filed.

April 24th. Hearing, pursuant to appointment, 11 a.m. to 11.30 a.m., at Board's Chambers. Application granted. Applicant's Solicitor to draft Order.

May 2nd. Draft Order filed.

May 3rd. Order issued.

Procedure File 8273.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law 9533—Restricted Area on Beaumont Road and other highways.

April 5th. Application and copy of By-law filed.

April 23rd. Hearing, pursuant to appointment, 10.30 to 11.30 a.m., at Board's Chambers. Judgment reserved pending view by Board as to Beaumont Road (south side) and Maclennan Avenue (north of Canadian Pacific Railway tracks). (See Reporter's Notes.)

April 25th. After view, Board approved By-law in part. See Memorandum of Judgment.

May 1st. Draft Order filed.

May 2nd. Order issued.

Memorandum of Judgment.

After having heard what was said at the hearing, and having afterwards had a view of both Beaumont Road and Maclennan Avenue as to lands abutting on which streets only, objections were raised to the Board's approval of said By-law, the Members of the Board have reached the following conclusion, namely, to approve the By-law except as to the lands fronting or abutting:

(1) Upon the south side of Beaumont Road, provided that Franklin L. Ray shall undertake not to erect upon his lands south of Beaumont Road any building other than a duplex dwelling house similar in character to the duplex residences he has already erected on his land lying south of Beaumont Road;

(2) Upon Maclennan Avenue, lying north of the tracks of the Canadian Pacific Railway Company, and extending northerly to Inglewood Drive.

(Sgd.) D. M. McIntyre,
Chairman.

25th April, 1923.

UNDERTAKING OF FRANKLIN L. RAY.

To THE CHAIRMAN,
Ontario Railway and Municipal Board,
47 Queen's Park, Toronto, Ont.

Dear Sir:

According to our conversation of yesterday and of the understanding that the restrictions applied for shall not apply to the south side of Beaumont Road, I hereby agree, that should I desire to build any more houses on the said property, facing Beaumont Road, that such buildings must be of a similar construction to those already built on said property, and must be either single detached houses or duplex.

Trusting that this is satisfactory, I remain,

Yours very truly,

(Sgd.) F. L. RAY.

Buffalo, N.Y., April 24th, 1923.

PROCEDURE FILE 8281. (P. 443.)

Application by Wm. E. Davidson and others, under section 21a of "The Consolidated Municipal Act, 1922," for detachment from the Town of Listowel of certain farm lands and the annexation of same to the adjoining Townships of Wallace and Elma.

April 9th. Petition filed.

Dec. 4th. Hearing, pursuant to appointment, 10 a.m. to 12 m., at Council Chamber, Town Hall, Listowel. Application granted (See Reporter's Notes.) Twenty-one days allowed for adjustments, etc. When adjustments completed, Mr. Morphy to draft Order and file with the Board. If adjustment not agreed upon the matter to be taken up again by the Board on application of either party after expiry of twenty-one days. In the meantime adjourned *sine die*.

PROCEDURE FILE 8296.

Application by James McMillan, and others, under section 21a of "The Consolidated Municipal Act, 1922," for detachment of certain farm lands from the Town of Palmerston and the annexation of same to the Townships of Minto and Wallace.

April 18th. Application and material filed.

Nov. 20th. Further material filed.

Dec. 6th. Hearing, pursuant to appointment, 10 a.m. to 12 m., at Council Chamber, Public Library Building, Palmerston. Application granted as to detachment of parcels 1, 2, 8, 9, 12 and 13. Twenty-one days allowed for adjustments. Mr. Munro to draft Order and submit to Townships and Town. In meantime adjourned *sine die*.

PROCEDURE FILE 8309.

Application by Emma Boulton, *et al.*, owner under "The Planning and Development Act," for approval of plan of parts Lots 24 and 25, Con. 1, east of Yonge Street, Township and County of York.

April 20th. Application and material filed.

April 30th. Hearing, pursuant to appointment, 11.30 to 11.40 a.m., at Board's Chambers. Plan approved and certified.

Procedure File 8310.

Application by The Border Cities Co., Ltd., owners under "The Planning and Development Act," for approval of plan of part Farm Lot 54, Con. 1, Township Sandwich West; also Lots 690, 902 and 903, and Block "A," Registered Plan 708, County Essex.

April 20th. Application and material filed.

April 30th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Application granted—plan approved and certified.

Procedure File 8321.

Application by the City of Fort William, under section 460 (9) of "The Consolidated Municipal Act, 1922," for relief from obligation to rebuild bridge over Neebing River at Prince Arthur Boulevard in said city.

April 23rd. Application and material filed.

May 15th. Hearing, pursuant to appointment, Council Chamber, City Hall, Fort William. Adjourned *sine die*, pending action by City Council.

Procedure File 8338. (P. 434.)

Application by the Town of Riverside, under section 5 of "The Planning and Development Act," for approval of plan of proposed streets and limits thereof of said town.

April 30th. Application and plan filed.

May 14th. Further material filed.

June 26th. Hearing, pursuant to appointment, 10.30 a.m. to 12.30 p.m., Town Hall, Riverside. Plan approved.

Procedure File 8348.

Application by the Town of Rainy River, under section 3 (c) of "The Ontario Telephone Act, 1918," for authority to pass a By-law providing for debenture issue of $5,500 for improvements and extensions to its telephone system.

May 5th. Application filed.

May 16th. Hearing, pursuant to appointment, 8 to 8.30 p.m., Town Hall, Rainy River. Application granted.

May 30th. Order.

Procedure File 8351.

Application by Joseph Henry Smith, owner, under "The Planning and Development Act," for approval of plan of Lots 5, 6 and 7, Plan 2069, Township York, County York.

May 8th. Application and material filed.

May 22nd. Hearing, pursuant to appointment, 10.30 to 10.50 a.m., at Board's Chambers. Plan approved.

June 13th. Plan certified (Certificate dated May 22nd, 1923).

Procedure File 8352.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed passing siding at Bassett's, Stop 65 (New Stop 46) on the Metropolitan Division of The Toronto & York Radial Railway.

May 9th. Application and blue print plan filed.
May 10th. Engineer's Report filed.
May 22nd. Hearing, pursuant to appointment, 11 a.m. to 1 p.m., at Board's Chambers. Referred to Board's Engineer.
May 26th. Engineer's Report filed.
May 31st. Plan approved and certified.

May 10th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Bassett's Siding, Yonge Street.

I have examined Plan No. 500-98-6, prepared by The Hydro-Electric Power Commission, showing a turnout from the main line of the Metropolitan division of the Toronto & York Radial Railway, on Yonge Street, in the Town of Aurora, known as Bassett's Siding, Stop 65.

The main line here runs down the centre of the street, and the proposed turnout will be placed on the east side, the two tracks being 13 feet centre to centre. This turnout crosses two culverts, one near each end, about 150 feet back from the switch. There are no engineering difficulties as far as the plan shows and from that point it is satisfactory; but I fail to see why a turnout 1,070 feet long should be required on the main street of a town, unless it is for the purpose of storing cars, which is in my opinion not a very desirable thing at such a point and will cause an obstruction to vehicular traffic. I would therefore advise your Board, before approving this plan, to satisfy themselves as to whether any of the parties concerned wish to raise objections.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

May 26th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Bassett's Siding at Aurora, Stop 65.

On Thursday last I went with Mr. Wilson, of the Toronto & York Radial Railway, to inspect the proposed siding at Aurora, on the Metropolitan Branch of the said railway, Stop 65, Yonge Street.

I understand from Mr. Wilson that his Company owns the strip of land about 24 feet wide, shown on the plan from the off-set in the property line marked 1013, plus 49, to 1024 plus 01.5, or 1,052.5 feet in length. East of this property line for at least a quarter of a mile there are no buildings of any kind and the ground is low and swampy. On the top of the hill, about a quarter of a mile east of the property line, there is a barn, the only building visible.

The siding will be partly on the east side of Yonge Street and partly on the Company's own property, the east rail being practically on the line of the street and the poles on the Company's land.

I see no reason why this siding should not be laid down in this location, as

it will not interfere with any person, the main street of Aurora being about a mile to the south of the nearest switch.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8353.

In the matter of the petition of T. G. Brigham, and others, under section 9 of "The Local Improvement Act," against the proposed construction of a concrete sidewalk on the northeast side of Duke Street, in the City of Ottawa, as a Local Improvement.

May 9th. Petition filed.

June 1st. Hearing, 10 to 10.45 a.m., Council Chamber, City Hall, Ottawa. (Mr. Ellis authorized under section 9, Chap. 186, R.S.O.).

June 5th. Report of Mr. Commissioner Ellis filed and adopted.

June 5th. Petition dismissed.

REPORT OF MR. COMMISSIONER ELLIS.

The concrete sidewalk which it is proposed to construct is to replace one which was constructed thirty-seven years ago. It was admitted by all parties that the old sidewalk is in bad condition. The Petitioners, however, urged that it should be repaired at the general expense. The Civic Officials stated that only such work would be done as was necessary, and that whatever portions of the old sidewalk could be used would be used.

Considering the lifetime of the old sidewalk, I do not think the expense connected with the new sidewalk should be paid out of the general fund. I, therefore, recommend that the petition be dismissed.

(Sgd.) J. A. ELLIS,
Commissioner.

Toronto, June 5th, 1923.

Adopted:

(Sgd.) D. M. MCINTYRE,
Chairman.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

PROCEDURE FILE 8356.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of proposed passing siding at Mill Road, Stop 48 Yonge Street (New Stop 24), Metropolitan Division of The Toronto & York Radial Railway.

May 10th. Application and blue print plan (Drawing No. 500-98-4) filed.

May 16th. Engineer's Report filed.

May 22nd. Hearing, pursuant to appointment, 11 a.m. to 1 p.m., at Board's Chambers. Enlarged to June 5th, at 11 a.m., pending negotiations. (See Reporter's Notes.)

June 6th. Hearing, 11 a.m.; 11.30 a.m. to 2 p.m.; adjourned to 11th inst., at 11 a.m.

June 11th. Hearing, 11 a.m.; 11.45 a.m. to 5.45 p.m. (Heard with P.F. 8358. Plan approved.

June 11th. Order.

Oct. 23rd. Drawing No. 500-11 superseding Drawing No. 500-98-4, filed for approval.

Oct. 23rd. Drawing No. 500-11 approved and certified.

May 16th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Mill Road Siding, Yonge Street.

I have examined Plan No. 500-98-4, prepared by the Hydro-Electric Power Commission, showing Mill Road Siding, Stop 48 on Yonge Street, for the Metropolitan Branch of The Toronto & York Radial Railway.

This plan is satisfactory as regards the engineering features as the siding is inside the main line next the easterly boundary of the street, but before approving the plan I would suggest that your Board satisfy itself whether there is any objection from the property owners or the Department of Public Highways.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8357.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed passing siding at Garden Avenue, Stop 45 (New Stop 20), Yonge Street, Metropolitan Division of Toronto & York Radial Railway.

May 10th. Application and blue print (Drawing 500-98-3) filed.

May 16th. Engineer's Report filed.

May 22nd. Hearing, pursuant to appointment, 11 a.m. to 1 p.m., at Board's Chambers. Enlarged to 11 a.m., June 5th, pending negotiations.

June 5th. Hearing, pursuant to appointment, 11 a.m.; 11.30 a.m. to 2 p.m.; adjourned to 11 a.m., 11th inst., at Board's Chambers.

June 11th. Hearing, 11 a.m.; 11.45 a.m. to 5.45 p.m. Plan approved. (Heard with P.F. 8358.)

June 11th. Order. (See P.F. 8356.)

Oct. 18th. Plan (Drawing No. 500-110) to supersede Drawing No. 500-98-3, filed for approval.

Oct. 24th. Drawing No. 500-110 approved and certified.

May 16th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Garden Avenue Siding, Yonge Street.

I have examined Plan No. 500-98-3, prepared by the Hydro-Electric Power Commission, showing Garden Avenue Siding, Stop 45 on Yonge Street, for the Metropolitan Branch of the Toronto & York Radial Railway.

This plan is satisfactory as regards the engineering features as the siding is inside the main line next the easterly boundary of the street, but before approving the plan I would suggest that your Board satisfy itself whether there is any objection from the property owners or the Department of Public Highways.

Yours truly,

(Sgd.) H. W. Middlemist.

Procedure File 8358.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed passing siding at L.O.L. Orphanage, Stop 51½ (New Stop 29), Yonge Street, Metropolitan Division of Toronto & York Radial Railway.

May 10th. Application and blue print plan (Drawing No. 500-98-5) filed.

May 16th. Engineer's Report filed.

May 22nd. Hearing, 11 a.m. to 1 p.m. (Heard with P.F. 8356).

June 4th. Engineer's Report filed.

June 5th. Hearing, 11 a.m.; 11.30 a.m. to 2 p.m.; adjourned to 11 a.m., 11th inst.

June 11th. Hearing, 11 a.m.; 11.45 a.m. to 5.45 p.m. First plan approved.

June 11th. Order. (See P.F. 8356.)

June 15th. Motion for Leave to Appeal dismissed with costs. (See *Globe* of this date.)

Aug. 20th. Drawing No. 500-98-10, showing new location of siding, filed for approval.

Aug. 31st. Engineer's Report filed.

Sept. 6th. Hearing, pursuant to appointment, 11 a.m.; 11.50 a.m. to 12 m., at Board's Chambers. Application granted. Applicants to draft Order and submit to Col. Biggs for approval.

Sept. 26th. Draft Order filed and returned for approval of Dept. of Highways.

Order, Drawing No. 500-98-10 approved and certified.

May 16th, 1923.

Engineer's Report.

The Chairman,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

L.O.L. Orphanage Siding, Yonge Street.

I have examined Plan No. 500-98-5, prepared by The Hydro Electric Power Commission, showing the L.O.L. Orphanage Siding, Stop 51½ on Yonge Street, for the Metropolitan Branch of the Toronto & York Radial Railway.

This plan is satisfactory as regards the engineering features, as the siding is inside the main line next the easterly boundary line of the street, but before approving the plan I would suggest that your Board satisfy itself whether there is any objection from the property owners or the Department of Public Highways.

Yours truly,

(Sgd.) H. W. Middlemist.

June 4th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Revised Plan of L.O.L. Orphanage Siding, Stop 51½ Yonge Street.

On Tuesday last, 29th ult., I went with Mr. Fairlie, of the Hydro-Electric Commission, and Mr. Loudon, representing the L.O.L. Orphanage, to examine the location of the proposed siding previously submitted to your Board, and reported on by me on May 16th, in order to see whether there were any physical difficulties if the siding were moved either north or south away from the front of the Orphanage.

We found it impossible to move the siding further south owing to the steep grade beyond the switch, but that it could be moved north so that the south switch would come 50 feet south of the north property line of the Orphanage grounds, provided the temporary siding now in is removed. This has been agreed to by the Orphanage authorities, so that Mr. Fairlie has now prepared a revised plan accompanying this report, showing the south switch in the above-mentioned location. The siding will therefore be opposite vacant land owned by John Fisher & Company, for a length of 650 feet to the north switch, leaving 50 feet on the highway alongside the Orphanage property, the total length of siding being 700 feet.

At about 350 feet north of the north property line of the Orphanage the summit of the grade of the highway should be cut down, when the Department pave this section, for a depth of about one foot, to make the grade of the siding similar to what it would be if placed wholly in front of the Orphanage, as shown on the original plan. This would, in my opinion, be also a considerable improvement in the grade of the highway. This change is also shown on the revised plan. I understand The Hydro-Electric Power Commission might be willing to locate the siding here if this change of grade is made, and if the question of cost regarding the right-of-way can be settled between them and the Orphanage authorities, and if the Highway Department will consent to this new location and change of grade. The point of switch would be about 90 feet north of the main entrance to the Orphanage.

Yours truly,
(Sgd.) H. W. MIDDLEMIST.

August 31st, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Siding at Stop 51½ on Yonge Street.

I have examined Plan No. 500-98-10 prepared by The Hydro-Electric Power Commission, and revised August 16th, 1923, showing the siding at Stop 51½ on the east side of Yonge Street, for the Toronto and York Radial Railway.

This siding was originally shown opposite the L.O.L. Orphanage, but has been moved about 1,000 feet south of its former proposed location, and is now opposite an empty field. The poles are between the main line and siding, which

scale 13 feet centres. The east rail of siding is about 10 feet from the new easterly limit of Yonge Street.

I see no engineering difficulties with regard to this siding, but before approving the plan, I would advise your Board to ascertain whether there are any objections on behalf of any of the parties interested.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8359.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed passing siding at Doane's Gate, Stop 40 (New Stop 15), Yonge Street, Metropolitan Division of Toronto & York Radial Railway.

May 10th. Application and blue print plan (Drawing No. 500-98-1) filed.

May 22nd. Hearing, 11 a.m. to 1 p.m. (See P.F. 8356.)

June 22nd. Hearing continued, 11 a.m.; 11.30 a.m. to 12.30 p.m., at Board's Chambers. Adjourned to 11th inst., at 11 a.m.

June 11th. Hearing, 11 a.m.; 11.45 a.m. to 1 p.m., and 2.30 to 5.45 p.m. (Heard with P.F. 8358.) Plan approved.

June 11th. Order (See P.F. 8356).

Aug. 17th. Plan (Drawing No. 500-98-1A, showing revised location of siding) filed.

Sept. 6th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Application granted. Applicant to draft Order and submit to Col. Biggs.

Sept. 26th. Draft Order filed and returned for approval of Department of Highways.

Order. Drawing No. 500-98-1A approved and certified.

May 16th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Doane's Gate Siding, Yonge Street.

I have examined Plan No. 500-98-1, prepared by The Hydro-Electric Power Commission, showing Doane's Gate Siding, Stop 40, on Yonge Street, for the Metropolitan Branch of the Toronto & York Radial Railway.

This plan is satisfactory as regards the engineering features as the siding is inside the main line next the easterly boundary of the street, but before approving the plan I would suggest that your Board satisfy itself whether there is any objection from the property owners or the Department of Public Highways.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

August 31st, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Doane's Gate Siding, Stop 40, Yonge Street.

I have examined Plan No. 500-98-1A, prepared by The Hydro-Electric Power Commission, revised August 10th, 1923, showing the proposed siding at Doane's Gate, Stop 40, Yonge Street, for the Toronto and York Radial Railway.

This siding has been moved about 75 feet north of its position shown in the former plan to keep it away from the house of J. W. Dean, and also shortened to 630 feet in length to avoid the entrance near the north switch. The poles are placed between the main line and siding, which are 18 feet centres, the east rail of the siding being about 10 feet from the new easterly limit of Yonge Street.

I see no engineering difficulties with regard to the siding, but before approving the plans, it might be well for your Board to ascertain whether there are any objections from the parties interested.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8361.

Application by the City of Ottawa, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 5518—Restricted Area on Stewart, Wilbrod and Besserer Streets and Daly Avenue, east of Charlotte Street.

May 10th. Application and copy of By-law filed.

June 8th. Hearing, pursuant to appointment, 10 to 10.15 a.m., at the Council Chamber, City Hall, Ottawa. (Mr. Commissioner Ellis authorized under sec. 9, Chap. 186, R.S.O.). Recommendation that By-law be approved with exemption therefrom of Lot on corner of Charlotte and Besserer Streets.

June 25th. Order.

PROCEDURE FILE 8363.

Application by The Shuniah Telephone Co., under section 88 of "The Ontario Telephone Act, 1918," for authority to increase charges for service.

May 10th. Application filed.

May 15th. Hearing, pursuant to appointment, 10.30 to 11.30 a.m., Council Chamber, City Hall, Fort William. Application granted.

May 30th. Order.

PROCEDURE FILE 8368.

Application by the City of Hamilton, under section 401 (13) of "The Consolidated Municipal Act, 1922," for approval of its proposed Coal Weighing By-law to amend its Revised By-law No. 14 (1910).

May 12th. Application and material filed.

June 12th. Hearing, pursuant to appointment, 11 a.m. to 2.45 p.m., Council Chamber, City Hall, Hamilton. Application dismissed.

Procedure File 8379.

In the matter of the petition of P. J. Nolan and others, under section 9 of "The Local Improvement Act," against the construction as a Local Improvement of sidewalks on the east and west sides of Sherwood Street, between Oregon and Ottawa Streets, in the City of Ottawa.

May 14th. Petition filed.

June 15th. Hearing, pursuant to appointment, 10 to 10.30 a.m., Council Chamber, City Hall, Ottawa. (Mr. Commissioner Ellis authorized under section 9, Chapter 186, R.S.O.) Petition dismissed.

June 19th. Draft Order filed and issued.

Procedure File 8396.

Application by the Town of Oakville, under section 13 of "The Public Parks Act," for approval of its By-law setting apart "Victoria Park" for athletic purposes.

May 22nd. Application, etc., filed.

June 11th. Hearing, pursuant to appointment, 11 to 11.15 a.m., at the Board's Chambers. Application granted. Applicant's Solicitor to draft Order.

June 13th. Draft Order filed and issued.

Procedure File 8404.

Application by James Aitchison, owner, under "The Planning and Development Act," and "The Land Titles Amendment Act, 1917," for approval of plan of Lots 58 and 59 lying between William Street and Macdonald Avenue, in the Town of Weston (Plan M. 396, Land Titles Office, Toronto).

May 25th. Application and material filed.

June 6th. Hearing, pursuant to appointment, 10.30 to 11 a.m., at Board's Chambers. Plan to be approved (when amended to give three feet to widen Macdonald Avenue. Mr. LeMay to O.K. amended plan).

July 20th. Plan approved and certified.

Procedure File 8412.

Application by James Morrow Oxley, owner, under "The Planning and Development Act," for approval of plan of part Lot 13, Broken Front Range, Credit Reserve, Township Toronto, County Peel.

May 28th. Application and material filed.

June 11th. Hearing, pursuant to appointment, 11 to 11.15 a.m., at Board's Chambers. Plan to be amended as directed by the Board (Way to be private lane 45 feet wide down to Mr. Walker's property).

Oct. 4th. Amended plan certified.

Procedure File 8413.

Application by the Township of Etobicoke, under Chapter 62, Ontario Statutes, 1923, for approval of its By-law No. 1429—extension of Water Area No. 1 (described in By-law No. 1370)—$50,000.

May 29th. Application and material filed.

July 11th. Hearing, pursuant to appointment, 10.30 a.m.; 11.30 to 11.45 a.m. Separate proof of publication and posting to be filed. Application granted. Applicant's Solicitor to draft Order.

Aug. 14th. Order, in form of draft filed, issued.

Procedure File 8426.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act," for approval of plan of proposed siding on The Toronto & York Radial Railway, Metropolitan Division, for Lake Simcoe Ice Co., at Stop 33 (New Stop 8), Yonge Street.

June 2nd. Application and blue print plan filed.

June 5th. Hearing, pursuant to arrangement. Adjourned to 11 a.m., 11th inst., at Board's Chambers.

June 11th. Hearing, 11 to 11.45 a.m., and 5.30 to 6 p.m. Plan to be amended and will then be approved (Heard with P.F. 8358).

June 14th. Amended plan and draft Order filed by Applicant.

June 28th. Order issued.

Procedure File 8427.

In the matter of an Appeal by Jacob Gillier and others, under Chapter 71, Ontario Statutes, 1923, against assessments in respect of a pavement on Lancaster Street, in the City of Kitchener, as a local improvement.

June 2nd. Application, etc., filed.

June 13th. Hearing, pursuant to appointment, 11 a.m. to 1.50 p.m., Council Chamber, City Hall, Kitchener. View by Board of land in question. Judgment reserved.

Aug. 1st. Judgment delivered.

Sept. 18th. Approved draft Order filed.

Sept. 30th. Order issued.

Opinion of the Board.

This is a reference under Chapter 71 of "The Ontario Statutes of 1923," being an Act intituled "An Act respecting the City of Kitchener." No question is raised as to the validity generally of the proceedings of Council; the sole subject of reference being in brief the determination of the apportionment, as between land owners and corporation, of the special rates imposed by the special Assessment Roll upon certain lands.

The Board has had the benefit of a view of the lands and the highway in question, and having considered the evidence and exhibits filed, has come to the conclusion that some relief should be granted to the property owners. This conclusion is reached in view of a variety of considerations, chiefly that the character of the traffic to be carried by the highway is general and not local; that the lands sought to be taxed are not of a character usually subjected to local improvement rates; that in the case of some of the land owners chargeable the portion of the cost of the pavement assessed against them approximates to and in the case of others is more than the assessed value of their lands so charged, and that notwithstanding these facts, which, in the opinion of the Board, called for special treatment, the corporation at large proposed to assume only the minimum burden permissible under "The Local Improvement Act," and to cast the remainder of the cost upon the abutting property owners.

No principle or standard has been laid down by the Legislature for the guidance of the Board in making the proposed apportionment; so that it must be in a measure arbitrary and based on the foregoing general considerations.

The portion of Lancaster Street upon which the pavement has been laid is divisible into two sections, one of which is wholly within the corporate limits

of the City of Kitchener, while the other section forms the boundary line between the City of Kitchener and the Township of Waterloo, so that half of the pavement on the latter section is in each of these municipalities. The Board is of the opinion that each of these sections should not be treated similarly, but that a larger remission should be allowed in respect of the rate against the lands abutting on the highway, which is partly in the city and partly in the township.

The Board's determination is that fifty per cent. of the special rates imposed on the lands abutting on that part of Lancaster Street which forms the boundary line between the City of Kitchener and the Township of Waterloo, and thirty-five per cent. of the special rates imposed on the lands abutting on that part of Lancaster Street which is wholly within the City of Kitchener, be borne by the corporation at large, and that similar proportions of any of such special rates heretofore paid by any of the owners of such lands be refunded to them respectively by the Corporation of the City of Kitchener.

There will be no costs to either party, but the City of Kitchener will pay $15.00 in law stamps on the Order.

(Sgd.) D. M. McIntyre,
Chairman.

Toronto, August 1st, 1923.

Procedure File 8428.

In the matter of the application of the Corporation of the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9629, being a By-law "To repeal By-law No. 9188 (restricting part of St. George Street, between Bloor Street and Dupont Street, to detached private residences), as to No. 292 St. George Street."

June 5th. Application and material filed.

June 18th. Hearing, pursuant to appointment, 10.30 to 11 a.m., at Board's Chambers. Application granted. Applicant's Solicitor to draft Order.

June 18th. Order issued.

Procedure File 8435.

Application by the Township of Nepean, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 969—Restricted Area "McKellar Townsite."

June 5th. Application and material filed.

June 22nd. Hearing, pursuant to appointment, 10 to 10.45 a.m., Court House, Ottawa. (Mr. Commissioner Ellis authorized under sec. 9, Chap. 186, R.S.O.) Recommended that By-law be approved except as to clause 5. This clause deals with outside closets, privy vaults, etc., and in Mr. Ellis' opinion relates to matters outside the provisions of section 399a of "The Consolidated Municipal Act, 1922."

June 25th. Mr. Commissioner Ellis' Report adopted as basis of Board's Order.

July 30th. Amending By-law No. 972, filed.

July 30th. Draft Order filed.

Aug. 8th. Order.

Procedure File 8440.

Application by J. P. Bartleman, *et al.*, under "The Planning and Development Act," for approval of plan of part southwest quarter and east southeast

quarter of south half of Lot 12, Con. III, Township of Tisdale, District of Cochrane.

June 7th. Application filed.

June 21st. Hearing, pursuant to appointment, 10.30 to 11 a.m., at Board's Chambers. Plan approved and certified.

Procedure File 8448.

In the matter of the petition of Chas. M. Maass, and others, under section 9 of "The Local Improvement Act," against the construction of a sidewalk on the south side of Spencer Street, in the City of Ottawa.

Jan. 11th. Petition filed.

July 6th. Hearing, pursuant to appointment, 10 to 10.30 a.m., Council Chamber, City Hall, Ottawa. Adjourned to July 20th, 1923, at 10 a.m.

July 20th. Hearing, pursuant to adjournment, 10 to 10.30 a.m.

July 24th. Report of Mr. Commissioner Ellis (under sec. 9, Chap. 186, R.S.O.) filed and adopted.

Aug. 15th. Draft Order filed.

Aug. 16th. Order issued.

Report of Mr. Commissioner Ellis.

The Petitioners object to the proposed sidewalk on the ground that it is not necessary, as all the lots that it is proposed to assess are vacant, and not in demand. I inspected the site of the proposed work. There is a sidewalk on the north side of that part of Spencer Street upon which it is proposed to construct the sidewalk on the south side. Very little work has been done on the roadway, and it is in a very rough condition. It was stated on behalf of the City that the principal reason for constructing the sidewalk on the south side of the street was in order to improve the roadway, and make it available for traffic. It appears to me that until this is done the lots on the south side of Spencer Street will hardly be saleable, and so long as the construction of the sidewalk on the south side and the improvement to the roadway are deferred, the lots will have little selling value. As, however, the work upon the roadway will not be done this year, I see no reason why the construction of the sidewalk should not be left over until next year. Upon this understanding I recommend that the Petition be dismissed.

(Sgd.) J. A. Ellis,
Commissioner.

Toronto, July 24th, 1923.

Procedure File 8449.

In the matter of the petition of R. A. Bishop and others, under section 9 of "The Local Improvement Act," against the construction of a pavement on Catherine Street, between Bank and O'Connor Streets, in the City of Ottawa.

June 11th. Petition filed.

July 19th. Engineer's Report filed.

July 19th. Report of Mr. Commissioner Ellis filed and adopted.

Aug. 1st. Draft Order filed.

Aug. 7th. Order issued.

July 18th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Catherine Street, Ottawa.

On Friday last, the 13th instant, I examined the surface of Catherine Street, Ottawa, between Bank and O'Connor Streets, accompanied by Mr. Ellis of your Board, and Mr. McCallum, the City Engineer.

The present street is macadam, with a tarvia surface, and the City Authorities wish to put in a concrete base and surface with asphalt. The traffic seems to be light on this street, but a large garage has just been built which will possibly increase it.

The street would probably last another year or perhaps longer, but it might be well in the meantime to put in any sewers or under-drainage which might be required—say this year, and defer the paving for next year, or for such a period as the present surface will, in the opinion of the City Engineer, stand the traffic.

Yours truly,
(Sgd.) H. W. MIDDLEMIST.

REPORT OF MR. COMMISSIONER ELLIS.

The Petition in this matter was heard by me on the 29th June last. The Petitioners claimed that the proposed work was not necessary, especially because the street in question is not much used for traffic. I asked the Board's Engineer to inspect the street and report as to the necessity of the proposed work. Attached hereto is his report. He states that the street is macadam with a tarvia surface, and that the traffic seems to be light, but that a large garage had just been built which will probably increase it. He also says that the street will probably last another year, or perhaps longer, but that it might be well in the meantime to put in any sewers or under-drainage which might be required, say this year, and defer the paving for another year, or for such period as the present surface will, in the opinion of the City Engineer, stand the traffic.

I agree in this report and therefore recommend that the petition be dismissed upon the understanding that only the sewers or under-drainage be constructed this year, and that the paving be deferred until next year, or for such longer period as, in the opinion of the City Engineer, the present surface will stand the traffic.

(Sgd.) J. A. ELLIS,
Commissioner.

Toronto, July 19, 1923.

PROCEDURE FILE 8450.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9651—Restricted Area on Cottingham Street—between Avenue Road and Poplar Plains Road.

June 13th. Application and copy of By-law filed.

July 3rd. Hearing, pursuant to appointment, 11 a.m. to 11.45 a.m. at Board's Chambers. Application granted. Applicant's solicitor to draft Order.

July 6th. Draft Order filed and issued.

Procedure File 8451.

Application by the Township of Etobicoke under chapter 62, Ontario Statutes, 1923, for approval of its By-law No. 1430—Waterworks construction in Area No. 6—($3,200).

June 13th. Application and material filed.

July 11th. Hearing, pursuant to appointment, 10.30 to 11 a.m. Separate proof of publication and posting to be filed. Area (by consent of Applicants) to be designated No. 6. Application granted. Order to be drafted by Applicant's solicitor.

Aug. 14th. Draft Order filed.

Aug. 14th. Order issued.

Procedure File 8452.

In the matter of the petition of Henry Dirks and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Hamilton of part of the Township of Barton.

June 14th. Petition, etc., filed.

July 10th. Hearing, pursuant to appointment, 10 a.m.; 11 a.m. to 1 p.m., at Council Chamber, City Hall, Hamilton. Application referred back to City Council. Board will not approve of present terms of annexation, the terms being too severe.

Procedure File 8457.

Application by the Township of Etobicoke, under chapter 62, Ontario Statutes, 1923, for approval of its By-law No. 1433—extension of Water Area No. 1 as described by its By-law No. 1429.

June 16th. Application and material filed.

July 11th. Hearing, pursuant to appointment, 10.30 a.m.; 11 a.m. to 11.30 a.m. Separate proof of publication and posting to be filed. Application granted. Applicant's solicitor to draft Order.

Aug. 14th. Draft Order filed.

Aug. 14th. Order issued.

Procedure File 8491.

In the matter of the petition of Thos. W. Hand and others, under section 9 of "The Local Improvement Act," against the construction in the City of Hamilton of an asphalt and brick roadway on King Street—between Margaret and Dundurn Streets.

June 26th. Petition filed.

July 10th. Hearing, pursuant to appointment, 10 to 11 a.m., Council Chamber, City Hall, Hamilton. Petition dismissed. Mr. Waddell to draft Order.

July 12th. Approved draft Order filed.

July 14th. Order issued.

Procedure File 8512.

In the matter of the application of the City of Fort William, under section 232 (3) of "The Ontario Railway Act," for approval of the extension and operation of The Mount McKay and Kakabeka Falls Railway in and through the Municipalities of the Townships of Neebing and Paipoonge.

July 3rd. Application and material filed.
July 13th. Engineer's Report filed.
July 18th. Order issued and plans approved and certified.

July 5th, 1923.

ENGINEER'S REPORT.

THE CHAIRMAN,
The Ontario Railway and Municipal Board,
Toronto.

Sir:

Re Mount McKay and Kakabeka Falls Railway.

I have examined the plan and profile of the route of the Mount McKay & Kakabeka Falls Railway from the south limit of Montreal Street to the west limit of Lot 4 at Fort William. The railway is a single track running along Neebing Avenue and Broadway, Fort William; thence along private right of way to Lot 4.

The plan is satisfactory and I recommend its approval by your Board.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 8513.

In the matter of the application of Matthew McLean *et al.* for the removal of certain names from a petition to the Municipal Council of the Township of Dungannon praying for the establishment of a telephone system.

July 4th. Application filed.

July 26th. Hearing, pursuant to appointment, 4 to 6 p.m., Community Hall, Bancroft.

Aug. 14th. Report of Chairman (under section 9, chapter 186, R.S.O.) filed and adopted.

Aug. 14th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) D. M. MCINTYRE,
Chairman.

Toronto, August 14th, 1923.

Aug. 14th, 1923.

ORDER.

Upon the application of the above-named applicants, upon reading the report of Donald M. McIntyre, Esquire, K.C., Chairman of the Board, who heard the evidence adduced on behalf of the Applicants and the Municipal Corporation of the Township of Dungannon, and upon reading the petition of the Applicants and other material on file.

The Board orders, pursuant to section 7 of "The Ontario Telephone Act, 1918," that the removal of the signatures of the following persons affixed to the petition presented to the Council of the Municipality of the Township of Dungannon praying for the establishment of a telephone system under the provisions of Part II of "The Ontario Telephone Act, 1918," that is to say:

Jas. E. McLean,
Michael Walker,
Thos. Gaffney,

from the said petition is hereby approved.

And the Board further orders and declares that the signatures of the following persons affixed to the before-mentioned petition, that is to say:

Pat. Kavanagh, A. W. Gordon, Jas. Barker, Alex. McMillan, George Ferrill, Harry Plumley, John C. Schriver, Lorenzo Weese, Hawkins Bros., John Hawkins, H. P. Lancaster, E. J. McConnell, J. A. Anderson, Asa Smith, Richard Robbins, Albert Bentley, George Bentley, Wm. Ferrill, Chas. Curry, J. S. Adams, Fred. Rupnow, Thos. Turriff, Albert Wheeler, Robt. J. Anderson, Edw. McLean, Jas. McInnes, Elijah Vardy, John McGee, Harry McGee, W. R. Wood, W. G. Smith, Frank Bradshaw, Frank Kelusky, J. H. Miller, Wm. Tice, Ernest Hennessy, James Liddle, John C. Churcher, Ed. A. Foster, Alex. Price, Philip Green, John Fraser, Archie Vardy, Herman Vardy,

are good and valid signatures to said petition and each such person so signing is bound under said petition in terms of the same.

And the Board makes no order for costs or for Law Stamp fees in respect of this Order.

(Sgd.) A. B. Ingram,
(Seal) *Vice-Chairman.*

Procedure File 8516.

In the matter of the application of the Commissioners for the Telephone System of the Municipality of Faraday for an Order authorizing the Municipal Council of the Township of Faraday to pass a By-law providing for the conversion of The Faraday Municipal Telephone System from "grounded" to "metallic" circuits and for the issuing of debentures to meet the cost of the work.

July 4th. Application filed.

July 26th. Hearing, pursuant to appointment, 4 to 4.15 p.m., Community Hall, Bancroft.

Aug. 18th. Report of Chairman (under section 9, chapter 186, R.S.O.), recommending granting of application, filed and adopted.

Aug. 18th. Order.

Report.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) D. M. McIntyre,
(Seal) *Chairman.*

Toronto, August 18th, 1923.

August 18th, 1923.

Order.

Upon the application of the above-named Applicants, upon reading the said application, the report of Donald M. McIntyre, Esquire, K.C., Chairman of the Board, who heard the evidence adduced on behalf of all parties, and other material filed.

The Board orders, pursuant to section 21 of "The Ontario Telephone Act, 1918," that the Council of the Municipality of the Township of Faraday may

pass a by-law providing for the conversion of The Faraday Municipal Telephone System from "grounded" to "metallic" circuits, and may provide in such by-law for the issue of debentures to an amount not exceeding One Thousand Five Hundred Dollars ($1,500.00), to pay for the cost of the work.

And the Board further orders that the subscribers to the Telephone System of the Municipality of Faraday, known as "The Faraday Municipal Telephone System," shall defray the cost of such conversion from "grounded" to "metallic" circuits by a special rate to be levied upon their lands sufficient to discharge the debenture debt incurred by reason of the said conversion, with interest, in fifteen equal annual instalments.

And the Board makes no order for costs, save and except that the Applicants shall pay $5.00 for the Law Stamps required for this Order.

(Sgd.) A. B. Ingram,
Vice-Chairman.

(Seal)

Procedure File 8519.

In the matter of the application of The People's Telegraph and Telephone Company, Limited, for authority to increase the charges for local service in the Village of Bancroft, as follows:

For Business Telephones.....from $15.00 to $24.00 per annum.
For Residence Telephones...from $12.00 to $16.00 per annum.

July 5th. Application filed.

July 26th. Hearing, pursuant to appointment, 4 to 4.15 p.m., Town Hall, Bancroft.

Aug. 14th. Report of Chairman (under section 9, chapter 186, R.S.O.) filed and adopted.

Aug. 14th. Order.

Report.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) D. M. McIntyre,
Chairman.

Toronto, the 14th day of August, 1923.

August 14th, 1923.

Order.

Upon the application of the above-named Applicant, upon reading the report of Donald M. McIntyre, Esquire, K.C., Chairman of the Board, who heard the evidence adduced on behalf of all parties, Statements of Assets and Liabilities, Receipts and Disbursements and other material on file.

The Board orders that the Applicant, The People's Telegraph and Telephone Company, Limited, be authorized to charge the following rates for telephone service, to take effect as from July 1st, 1923:

For Local Service at Bancroft.

Business Telephones.....$24.00 per annum.
Residence Telephones.....$16.00 per annum.

And the Board makes no order for costs, save and except that the Applicant shall pay $5.00 for Law Stamps required for this Order.

(Sgd.) A. B. Ingram,
Vice-Chairman.

(Seal)

Procedure File 8523.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9683—Restricted Area on either side of Crescent Road (excepting premises No. 2).

July 6th. Application and copy of By-law filed.

Sept. 5th. Hearing, pursuant to appointment, 11 to 11.15 a.m., at Board's Chambers. Application granted. Applicant's solicitor to draft Order. (See Reporter's Notes.)

Sept. 26th. Approved draft Order filed.

Sept. 26th. Order issued.

Procedure File 8530.

Application by The Hydro-Electric Power Commission of Ontario, under "The Ontario Railway Act" for approval of proposed passing siding at Stop 42 (New Stop 17), Yonge Street, Metropolitan Division of Toronto & York Radial Railway.

July 10th. Application and blue print, drawing No. 500-105, filed.

July 19th. Hearing, 11 to 11.30 a.m., at Board's Chambers. Hearing adjourned *sine die* pending negotiations.

Sept. 6th. Hearing, pursuant to adjournment, 11 a.m.; 11.30 to 11.50 a.m. Application granted. Applicant's solicitor to draft Order and submit to Col. Biggs for approval.

Sept. 26th. Draft Order filed and returned for approval of Department of Highways.

Order.

Drawing No. 500-105 approved and certified.

Procedure File 8544.

In the matter of the petition of Thomas Bowes, et al, under section 9 of "The Local Improvement Act," against the construction of an asphalt pavement on Hilda Street—from O'Meara to Scott Street, in the City of Ottawa.

July 13th. Petition filed.

July 19th. Certificate of City Clerk, that petition sufficient, filed.

Sept. 7th. Hearing, pursuant to appointment, 10 to 10.30 a.m., Council Chamber, City Hall, Ottawa. Report withdrawn by City.

Procedure File 8568.

In the matter of the petition of H. L. Trimble, and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the Town of Weston of part of the Township of York.

July 24th. Application and material filed.

Sept. 20th. Hearing, pursuant to appointment, 11 to 11.25 a.m., at Board's Chambers. Application granted. Order to be drafted by Applicant's solicitor and submitted to Township's solicitor for approval.

Oct. 16th. Approved draft Order filed.

Oct. 17th. Order issued.

Procedure File 8576.

Application by the City of Toronto, under section 399a of "The Consolidated Municipal Act, 1922," for approval of its By-law No. 9712—Restricted

Area of block of land bounded by Maynard Avenue, Leopold Avenue, Dowling Avenue and King Street West.

July 28th. Application and copy of By-law filed.

Sept. 5th. Hearing, pursuant to appointment, 11 to 11.20 a.m., at Board's Chambers. Application granted—Applicant's solicitor to draft Order and submit to Mr. Boland for approval as to form. (See Reporter's Notes.)

Sept. 11th. Approved draft Order filed.

Sept. 14th. Order issued.

Procedure File 8577.

In the matter of the petition of Alex. J. Nafe, and others, under section 9 of "The Local Improvement Act," against the manner of construction of curb and gutter on both sides of Fountain Street—from King Street, in a north-westerly direction, to the Corporation limits, in the Town of Preston.

July 28th. Petition filed.

Sept. 11th. Hearing, pursuant to appointment, 3.30 to 4.45 p.m., Council Chamber, Preston. Petition dismissed. Resolution of Council to be filed before Order issued.

Sept. 18th. Further material filed as directed.

Sept. 18th. Draft Order filed.

Sept. 20th. Order issued.

Procedure File 8577A.

In the matter of the petition of Bertence Cherry, and others, under section 9 of "The Local Improvement Act," against the manner of construction of curb and gutter on both sides of Fountain Street—from King Street, in a southerly direction, to the Kitchener highway—in the Town of Preston.

Aug. 3rd. Petition filed.

Sept. 11th. Hearing, pursuant to appointment, 3.30 to 4.45 p.m., Council Chamber, Preston. Petition dismissed. Resolution of Council to be filed before Order issued.

Sept. 18th. Further material filed as directed.

Sept. 18th. Draft Order filed.

Sept. 20th. Order issued.

Procedure File 8608.

In the matter of the application of the Commissioners for the Telephone System of the Municipality of the Township of Bruce for the approval of the following charges for telephone service:

To subscribers.....$20.00 per annum.

To Renters

Individual Line Residence Service.....$18.00 per annum.

Two-party Line Residence Service.....$16.00 per annum.

Business Service.....$25.00 per annum.

Aug. 15th. Application and material filed.

Sept. 13th. Hearing, pursuant to appointment, 11 a.m. to 12 m., Township Hall, Underwood.

Sept. 24th. Report of Vice-Chairman (under section 9, chapter 186, R.S.O.) filed and adopted.

Sept. 24th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

(Seal)

Toronto, September 24th, 1923.

September 20th, 1923.

ORDER.

Upon the application of the above-named Applicants, and upon reading the report of A. B. Ingram, Esquire, Vice-Chairman, who heard the evidence adduced on behalf of all parties interested, the Statement of Assets and Liabilities, Receipts and Disbursements, and other material on file.

The Board orders that the Applicants be authorized to charge the following rates for telephone service.

To Subscribers.....$20.00 per annum.

The foregoing charge to apply for the year ending December 31st, 1923.

To persons not being subscribers within the meaning of subsection (g) of section 2 of "The Ontario Telephone Act, 1918."

For Local Service in the Town of Kincardine, the Villages of Port Elgin, Paisley and Tiverton respectively:

For Business Individual Line Service.....	$2.08 per month.
For Residence Individual Line Service.....	1.50 per month.
For Residence Two-party Line Service....	1.33 per month.
For Rural Party Line Service.....	20.00 per annum.

The foregoing charges to apply from October 1st, 1923, to December 31st, 1924.

And the Board further orders that the Applicants shall on or before September 1st, 1924, file with the Board for approval a revised tariff of charges for service furnished to subscribers during the current year and for service to be furnished to renters during the year 1925, and shall submit with such revised tariff such information relative to the revenue requirements of the System as the Board may require.

And the Board makes no Order for costs save and except the Applicants shall pay $10.00 for the Law Stamps required for this Order.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

(Seal)

PROCEDURE FILE 8610.

In the matter of the application of the Commissioners for the Telephone System of the Municipality of the Township of Bruce for an Order authorizing the Council of the said Municipality to pass a By-law providing for carrying out the necessary alterations to The Bruce Municipal Telephone System covered by the proposed agreement with The Bell Telephone Company of Canada, Limited, for the purpose of co-ordinating and consolidating the duplicate plants of the Company and the Municipality in the Town of Kincardine, the Villages of Port Elgin and Paisley, and the rural sections contiguous thereto, and further provide for the issue of debentures for that purpose.

Aug. 15th. Application, etc., filed.

Sept. 13th. Hearing, pursuant to appointment, 10 to 11 a.m., Township Hall, Underwood.

Sept. 24th. Report of Vice-Chairman (under section 9, chapter 186, R.S.O.) filed and adopted.

Sept. 24th. Order.

REPORT.

The undersigned, having heard the evidence of all parties relative to this application, recommends that the annexed Order be adopted as the Order of the Board.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

Toronto, September 24, 1923.

September 20th, 1923.

ORDER.

Upon the application of the above-named Applicants, and upon reading the said Application, the report of A. B. Ingram, Esquire, Vice-Chairman, who heard the evidence adduced on behalf of all parties interested, and other material on file.

The Board orders pursuant to section 21 of "The Ontario Telephone Act, 1918," that the Council of the Municipality of the Township of Bruce may pass a By-law providing for carrying out the necessary reconstruction, replacements and alterations to the telephone system of the Municipality as may be necessary to carry out the proposed Agreement with The Bell Telephone Company of Canada, for the purpose of eliminating competition, co-ordinating and consolidating the duplicate plants of the Company and the Municipality in the Town of Kincardine, the Villages of Port Elgin and Paisley and the rural sections contiguous thereto, and further that the Council may provide in the said By-law for the issue of debentures to an amount not exceeding $25,000 to pay for the cost of the said reconstruction, replacements and alterations.

And the Board further orders that the subscribers to the telephone system of the Municipality of the Township of Bruce known as "The Bruce Municipal Telephone System" shall defray the cost of such reconstruction, replacements and alterations by a special rate to be levied upon their lands sufficient to discharge the debenture debt incurred by reason of the said reconstruction, replacements and alterations with interest in fifteen annual instalments.

And the Board further orders that the Applicants shall keep a separate account of all expenditures in connection with the reconstruction, replacements and alterations authorized herein, and shall upon the completion of the said reconstruction, replacements and alterations furnish the Board with a statement setting forth in such detail as the Board may require, particulars of all such expenditures.

And the Board makes no order for costs save and except the Applicants shall pay $10.00 for the Law Stamps required for this Order.

(Sgd.) A. B. INGRAM,
Vice-Chairman.

(Seal)

PROCEDURE FILE 8617.

Application by Ulysses G. Reaume and Joseph Morell under "The Planning and Development Act," for approval of plan of part Farm Lot 105, Town of Ford City, County Essex.

Aug. 18th. Application and material filed. (Objection already filed.)

Sept. 27th. Hearing pursuant to appointment, 11 to 11.35 a.m., at Board's Chambers. Judgment reserved. Board will communicate with Council of Ford City and Essex Border Utilities Commission. (See Reporter's Notes.)

Oct. 30th. Objection withdrawn.

Oct. 30th. Plan approved and certified.

PROCEDURE FILE 8635.

Between:

The Northern Bolt, Screw & Wire Co., Ltd.,

Appellant,

—and—

The Corporation of the City of Owen Sound,

Respondent.

(Assessment Appeal.)

Aug. 24th. Notice of Appeal filed.

Sept. 25th. Hearing, pursuant to appointment, 10 a.m. to 5.50 p.m., Court House, Owen Sound. Judgment reserved as to appeal and adjourned *sine die* as to amount of acreage and value thereof. (Not to be taken up until after 14th October.)

Dec. 5th. Settlement as to amount of acreage. Agreement filed.

Dec. 10th. Opinion delivered.

Dec. 18th. Approved draft Order filed.

Dec. 18th. Order issued.

OPINION OF THE BOARD.

This is an Appeal by the Northern Bolt, Screw and Wire Company, Ltd., from the confirmation of the assessment of certain of its property situated in the City of Owen Sound, by His Honour Charles Tyrrell Sutherland, Judge of the County Court of the County of Grey.

The assessment appealed against is as follows:

(a) On Keg Mill and Stack		$ 4,000 00
(b) On 638 feet of sheds		30,000 00
(d) On 4 acres of land	$4,000 00	
On 2 acres of land	200 00	
		4,200 00
		$38,200 00

The items above constituted a portion of the items of appeal to His Honour, the County Judge, which read as follows:

(a) On Keg Mill and Stack	$ 4,000 00
(b) On 638 feet of sheds	30,000 00
(c) On 600 feet of dock	2,000 00
(d) On 6 acres of land	6,000 00
	$42,000 00
Business Assessment	25,200 00
	$67,200 00

His Honour reduced the foregoing to the following amounts:

(a) On Keg Mill and Stack		$ 4,000 00
(b) On 638 feet of sheds		30,000 00
(d) On 4 acres of land	$4,000 00	
On 2 acres of land	200 00	
		4,200 00
		$38,200 00
Business Assessment		22,920 00
Total		$61,120 00

thereby confirming the assessment on the Keg Mill, the Stack, and 638 feet of Sheds.

Counsel for the Respondent raised objection to the Appeal on the ground that it did not involve $40,000. The Board ruled that inasmuch as the original appeal involved upwards of $40,000 the appeal was regular and in order.

In regard to the items of assessment in question, and in view of an error in the first item, it was mutually agreed that both items should be considered as one item comprising all the buildings and stack, $34,000, such as shown on Plan, Exhibit "2".

Counsel for the Appellant desired to give evidence and file a statement showing the assessments of other manufacturing plants in Owen Sound for the year 1923, claiming the right under subsection 16 of section 69 of "The Assessment Act," which he contended would assist the Board in arriving at what would be a proper assessment of these properties. In admitting evidence of the assessment of other manufacturing plants in Owen Sound, it was pointed out by the Board that unless the Appellant could prove that the assessments were made at their actual value, such evidence by way of comparison would be of little assistance to the Board in enabling it to determine the actual value of the properties in question. Supreme Court in (Dreifus v. Royds (1920) 61, S.C.R., p. 326 and 64, S.C.R. (1923) p. 346.)

The evidence, however, disclosed the fact that these assessments were made very far below their actual value, besides no reliable evidence was given as to the similarity of these plants with the one in question, therefore little or no assistance was given the Board by the admission of this evidence such as would enable it to arrive at the actual value of the properties in question.

Witnesses called by the Appellant place a value on these buildings ranging from $16,000 to $20,000 after deducting 40 to 50 per cent. for depreciation on cost of construction. James C. Kennedy, called by the Appellant, placed the reproduction cost of the buildings at $39,000, deducting 50 per cent. for depreciation.

Witnesses called by the Respondent place a value on the buildings at $48,903, allowing 8 to 10 per cent. for depreciation, except John Clark, who valued within $2,000 of the $48,903, allowing 10 per cent. for depreciation, value $44,013.

William Campbell, called by the Respondent, placed a value on each of the buildings, and when totalled up they amounted to $48,903. He placed a value on the flour shed, a building 640 x 50 feet, at $15,660. This building is stated to be between twenty-five and thirty years old. It was leased from the Canadian Pacific Railway Company for a term of twenty-five years from the first day of June, 1912, with right to renewal, and to terminate on a year's notice, rental $150 a year and taxes. Applying 10 per cent. depreciation would place a value of $14,094 on this building, and for which the C.P.R. receives only $150 a year and taxes. The Board cannot reconcile this valuation with the very low rental paid to the railway company, it being a very ordinary practice for landlords

to charge a rental of 10 per cent. of the value of the property—the owner paying the taxes. If such a rule were applied in this case $1,409 rental would be payable to the Company, less the taxes. It is quite evident that the railway company placed no such value on their property, otherwise they would have asked a greater rental.

In addition to this the floor of this flour shed is four feet above the main shop floor, necessitating the use of two hydraulic elevators to handle from one floor to the other from two hundred to three hundred tons of material a month, making it a costly and inconvenient operation, thus demonstrating beyond question that it is not a modern, up-to-date, one-story plant—(Box and Keg Mill 40 x 80 being the only two-story building in these properties).

In arriving at the value of the properties in question the Board is of opinion that it cannot accept the low values placed on the properties by the witnesses called by the Appellant, nor the high average depreciation of 40 to 50 per cent. on the cost of reproduction of the buildings, namely $39,000. Neither can it accept the high values placed on the properties by the witnesses called for the Respondent, namely $48,903, nor the low average depreciation of 8 and 10 per cent. on a valuation of $48,903.

It is quite clear from the evidence, as well as from a personal view of the property by the Members of the Board, that the buildings are in a more or less dilapidated condition, notably the long shed (flour shed), wire nail building, bolt mill, keg mill, and the undesirable general offices. The Board therefore finds that an average rate of 33 per cent. would be a reasonable amount to allow for depreciation on a valuation of $44,000 on the buildings, including the stack, the latter in the opinion of the Board being assessable.

Permission was given to reopen the whole assessment on account of an alleged error in the quantity of land assessed to the Company; Counsel for the Appellant objected on the ground of insufficient notice. Some evidence, however, in regard to the quantity of land was taken, after which it was agreed to adjourn the case *sine die*, in order that the parties be given an opportunity of getting together with the idea of settling the acreage of the land in question. The Board in the meantime were to reserve judgment until further advised by either party as to settlement or otherwise.

On the 4th instant the Board were advised of the following agreement between the parties herein, dated the 3rd instant:

"For the purpose of this Appeal only it is agreed between the parties hereto that the land held by the Appellants in the City of Owen Sound under lease from the Canadian Pacific Railway comprises 8.776 acres, and that of this amount 4.61 acres is filled land, and 4.16 acres is marsh land."

The Board agrees with His Honour Judge Sutherland on the value placed on the filled land of $1,000 per acre, and on the value placed on the marsh land of $100 per acre.

The assessment roll will therefore be amended to make the assessment as follows:

(a) On Keg Mill, Stack and 638 feet of sheds		$29,480 00
(d) On 4.61 acres of filled land	$4,610 00	
On 4.16 acres of marsh land	416 00	
		5,026 00
		$34,506 00
Business Assessment		20,703 60
Total		$55,209 60

The Board authorizes the Clerk to amend the roll accordingly, and the Board makes no Order for costs save and except that $15.00 for Law Stamps shall be required on the Order, each party to this appeal to pay $7.50.

(Sgd.) A. B. Ingram,
Vice-Chairman.

Dated at Toronto the 10th day of December, 1923.

Procedure File 8636.

In the matter of the application of the Municipal Council of the Corporation of the Township of Ekfrid, in the County of Middlesex, under section 460 (9) of "The Consolidated Municipal Act, 1922," for an Order relieving the said Corporation from the obligation to rebuild the bridge over the creek on the River Road through the south half of Lot 3 in the Fifth Range south of the Longwoods Road, in the Township of Ekfrid, and the north half of Lot 3 in the Sixth Range south of the Longwoods Road, in the said Township, and the road allowance between said lots.

Aug. 25th. Application filed.

Sept. 18th. Hearing, pursuant to appointment, 10 a.m.; 11 to 11.15 a.m., Town Hall, Glencoe. (View at 2 p.m.) Judgment reserved.

Sept. 28th. Judgment delivered.

Dec. 17th. Draft Order filed.

Dec. 18th. Order issued.

Opinion of the Board.

The Board held a hearing in the Village Hall, Glencoe, on the 18th instant, at the hour of eleven o'clock in the forenoon, due notice of the hearing having been given as directed by the Board. Counsel for the Applicants and those opposed requested the Board to have a view of the bridge in question and the alternative route, which was done in the presence of the representatives of both parties.

Upon resuming the hearing the Board heard the evidence adduced by Counsel for the Applicants, and by some of the petitioners and others in opposition to the application. Both parties filed petitions showing some in favour and others against the closing of the bridge.

The evidence on behalf of the Applicants appeared to be based largely on the hardship it would be to the Township to rebuild the bridge at a very great cost to accommodate a very limited traffic, and more especially on account of being willing to expend sufficient money to place the alternative route in shape to accommodate that traffic. The evidence of those opposed proved conclusively that the users of the highway and over the bridge in question would be inconvenienced if the bridge were closed to the extent of using the alternative route, which would entail an added distance in order to reach the Village of Middlemiss, where many of them did their trading. The merchants and other business men of the village testified as to the amount of traffic using this highway, and showed how seriously their trade would be affected, also the depressing effect the granting of this application would have on the Village of Middlemiss, the residents of which are taxpayers in the Township of Ekfrid, and who are willing to contribute their share of the cost of rebuilding the bridge.

The Board after carefully considering the evidence and arguments, and the documents filed herein, are of opinion that the public would be inconven-

ienced; that to rebuild the bridge would not entail a larger expenditure than would be reasonable, having regard to the use that would be made of the bridge if it were rebuilt.

The Board, therefore, declines to relieve the Applicants from the obligation to rebuild the bridge.

The Board makes no Order for costs, except that the Applicants shall pay $10.00 for Law Stamps on the Order dismissing the application.

(Sgd.) A. B. Ingram,
Vice-Chairman.

Dated at Toronto, the 28th day of September, 1923.

Procedure File 8637.

In the matter of the application of the Township of Ekfrid, under section 460 (9) of "The Consolidated Municipal Act, 1922," for relief from rebuilding bridge over creek on River Road through Lot 77 in Third Range south of Longwoods Road, in said Township.

Aug. 25th. Application filed.

Sept. 18th. Hearing, pursuant to appointment, 10 to 11 a.m., Town Hall, Glencoe. View at 2 p.m. Road to be closed except that part south of Brown's house to 16 sideroad. Payment of $100 and the bridge and road to Mr. Brown. Mr. Elliott to draft Order.

Dec. 17th. Draft Order filed.

Dec. 18th. Order issued.

Procedure File 8651.

Application by J. W. Henshaw, *et al.*, under "The Planning and Development Act," for approval of plan of "Cherry Gardens," being part Lot 11, Con. I of southern division, and Lot 189 and part Lot 188 of Registered plan 2123 York, Township of Etobicoke.

Aug. 31st. Application and material filed.

Sept. 17th. Hearing, pursuant to appointment, 11 a.m. to 12 m. Plan to be amended as directed by Board (continuing St. Mary's Road to west limit of plan). (See Reporter's Notes.)

Nov. 22nd. Amended plan approved and certified.

Procedure File 8653.

Application by John Hallam, Owner, under "The Planning and Development Act," for approval of plan of part Lot 28, Con. "B," Township Scarborough, County York.

Aug. 31st. Application and material filed.

Sept. 20th. Hearing, pursuant to appointment, 11.30 to 11.50 a.m., at Board's Chambers. Adjourned *sine die*, Township of Scarborough not having approved.

Nov. 5th. Plan having been produced with approval of City of Toronto and Township Scarborough endorsed thereon, said plan approved and certified.

Procedure File 8674.

In the matter of the application, under section 10 of "The Planning and Development Act," as enacted by section 3, chapter 60, Ontario Statutes, 1920,

for approval of deed—Myrtle Lena Baker to Peter Ker, of part south part of Lot 86, north on Talbot Road East in Township Malahide ($1\frac{92}{100}$ acres).

Sept. 20th. Application, etc., filed.

Oct. 4th. Hearing, 11 to 11.45 a.m., at Board's Chambers. (No one opposing.) Deed approved and certified.

PROCEDURE FILE 8682.

In the matter of the petition of Upper Canada Estates, Ltd., under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Toronto of part of the Township of York ("Oriole Parkway").

Sept. 26th. Application, certified copy of resolution of City Council and petition filed. (Duplicate of petition with certificate of City Surveyor attached also filed.)

Sept. 26th. Blue print plan of area filed.

Sept. 26th. Consent of Upper Canada College filed.

Oct. 16th. Hearing, pursuant to appointment, 11 to 11.40 a.m., at Board's Chambers. Application granted. City Solicitor to draft Order and have same approved by solicitor for Township of York.

Nov. 6th. Approved draft Order filed.

Nov. 13th. Order issued.

Dec. 15th. Application by proposed Village of Forest Hill for amendment of Order.

Dec. 17th. Conference. Order to stand.

PROCEDURE FILE 8692.

Application by Jas. E. McMann and Chas. Laskey, Owners, under "The Planning and Development Act," for approval of plan of Lot No. 12, Range 4, Township Sarnia, County Lambton.

Sept. 29th. Application filed.

Oct. 17th. Hearing, pursuant to appointment, 11 to 11.30 a.m., at Board's Chambers. Plan approved.

PROCEDURE FILE 8697.

Between:

William C. Stuart, Applicant,

—and—

The Village of Bell River, Respondent,

(Assessment Appeal.)

Oct. 3rd. Notice of Appeal filed.

Nov. 14th. Hearing, pursuant to appointment, 11 a.m. to 12 m. Appeal withdrawn.

PROCEDURE FILE 8698.

Between:

Samuel Stover, Applicant,

—and—

The Village of Bell River, Respondent,

(Assessment Appeal.)

Oct. 3rd. Notice of Appeal filed.

Nov. 14th. Hearing, pursuant to appointment, 11 a.m. to 12 m. Appeal withdrawn.

Procedure File 8721.

In the matter of the application of John F. Bell and others, under section 21a of "The Consolidated Municipal Act, 1922," for detachment from the Town of Harriston of certain farm lands and the annexation of same to the Township of Minto.

Oct. 11th. Application and material filed.

Nov. 9th. Hearing, pursuant to appointment, 10 a.m., Town Hall, Harriston. Order to issue allowing lands of certain applicants to be detached from Harriston, and refusing as to others. (See Reporter's Notes.)

Procedure File 8724.

Application by Henry McCutcheon, Owner, under "The Planning and Development Act," for approval of plan of part Park Lots 5 and 6 on northwesterly side of Buttonwood Avenue, Township York (Plan 652 East and West Riding of York).

Oct. 16th. Application and material filed.

Nov. 8th. Hearing, pursuant to appointment, 11 a.m.; 11.10 to 11.20 a.m., at Board's Chambers. Mr. Commissioner Ellis will report to the Board under section 9, chapter 186, R.S.O., against approving plan unless City of Toronto first approves thereof. Adjourned *sine die* pending negotiations with City of Toronto and Town of Weston.

Nov. 26th. Hearing continued, 11 to 11.30 a.m. Plan to be amended as directed by Board. Restriction that every lot shall contain at least 2,500 square feet, and have only one house erected thereon. Agreement to this effect to be settled with City. (See Reporter's Notes.)

Amended plan approved and certified.

Procedure File 8732.

In the matter of the petition of F. H. Conover, under section 9 of "The Local Improvement Act," against the construction as a local improvement of a pavement on a portion of the First Concession Road, between Erie Street and Forest Avenue, in the Town of Leamington.

Oct. 18th. Application and material filed.

Nov. 7th. Hearing, pursuant to appointment, 10.45 a.m., Town Hall, Leamington. Judgment reserved.

Nov. 29th. Report of Mr. A. B. Ingram, Vice-Chairman, filed and adopted.

Dec. 14th. Approved draft Order filed.

Dec. 15th. Order issued.

Report.

In the matter of the petition of Forest H. Conover, under section 9 of "The Local Improvement Act," against the construction, as a local improvement, of a pavement on the First Concession Road, between the west limit of Erie Street and the west limit of Forest Avenue, in the Town of Leamington.

The undersigned, in accordance with, and pursuant to, section 9 of "The Railway and Municipal Board Act," attended at the Town Hall, in Leamington, on the 7th instant at ten o'clock in the forenoon for the purpose of hearing the

above application. Messrs. A. B. Smith and W. A. Smith appeared as Counsel for the Petitioner, and Mr. E. C. Awrey as Counsel for the Town of Leamington.

Mr. Awrey raised a preliminary objection to the proceeding, contending that the relief which the Board is empowered to give under section 9 of "The Local Improvement Act" is "Any person being dissatisfied with such local improvement, or with the manner in which it is being undertaken, may by petition apply to The Ontario Railway and Municipal Board for relief; that the application in this case is for relief against said assessment merely a question of assessment." The point he endeavoured to make was that there was ample relief for that under the Act, as the opposing counsel could go to the Court of Revision, and from there to the County Judge in connection with this assessment. That at the time of this hearing no assessment had been made, and that there was no assessment to appeal against.

Mr. Smith, acting for the Petitioner, disagreed with the view expressed by Mr. Awrey, and argued that the proceeding was regular and in order. I ruled against the objection taken, promising, however, that the Board would give it consideration before giving its Judgment. See Fleming vs. Town of Sandwich (Appellate Division) 44 O.L.R. 1918-1919, p. 514, in further justification of my ruling.

The estimated cost of the proposed pavement in question is		$3,832 00
The town to pay		889 50
Chargeable on assessable frontage		$2,942 50
Total frontage in question	1,260 feet	
Allowances under Section 24	190 feet	
Total length of assessable frontage	1,070 feet	1,070 feet.

Estimated rate per foot frontage, $2.75.
Lifetime of work will be 15 years.

The allowances comprise 75 feet on the south-east part of Lot 6, Con. 1, and 75 feet on the north-east part of Lot 6, Con. 1, and 40 feet on Lot 1, Plan 546, thus making up the aforesaid 190 feet; and in addition the usual items amounting to $367, and comprising the total of $889.50 payable to the Town. (See Exhibit 2.)

Mr. Conover is the owner of the abutting land on both sides of the First Concession Road between Forest Avenue and Erie Street, including Lots 1 and 2, as shown on Plan 546 (see Exhibit 2). It appears that this plan was registered in the office of the Registrar, but Mr. Conover claims that he has cancelled the plan, but not the registered plan, and has farmed the lots ever since, Lot 6 on both sides of the road being also farmed, no portion of which is subdivided, nor intended to be subdivided, except the lots situated a considerable distance south on Forest Avenue and those parallel with the lake.

On the west side of Erie Street which borders on the eastern side of Mr. Conover's property, he is assessed under "The Local Improvement Act" on 559 feet frontage, at a total cost of $2,268.60, and the annual cost per foot frontage is 41.78 cents, and his annual cost each year is $233.58 (see Exhibit 3), payable in fifteen annual instalments. He with others petitioned for this work on Erie Street. The low cost per foot frontage is due to a grant from the County of Essex equal to a cash payment of $22,080.

He is also assessed under "The Local Improvement Act," in the Township west of Forest Avenue for pavement recently put in, which comes to the west end of Forest Avenue, and which joins this work in question. It is approximately

581 feet, cost per foot frontage $2.818, payable in twenty annual instalments, the property owners abutting on the Township Road to pay the whole cost of the owners' portion of the work. Mr. Conover was opposed to this work.

The First Concession Road east of Erie Street is stated to be a County road, and it would appear that it has been paved recently at the expense of the County of Essex. Neither the Town, nor the abutting property owners within the limits of the Town, has been charged anything for this work.

In view of the First Concession Road having been paved by the Township up to the western limit of Forest Avenue, and the eastern end by the County of Essex up to Erie Street, the Municipal Council of the Town of Leamington passed a resolution at a special meeting held on the morning of the 11th of October, 1923, under the authority of section 9 of "The Local Improvement Act." They determined and declared that it was desirable that the construction of a pavement on the First Concession Road between these two points be undertaken, etc.

It would appear by the evidence given by those called on behalf of the Town that the chief reason for requiring this work to be done was to join up the two pavements;

Secondly, to have a paved highway to accommodate a considerable traffic to the Park, which is located west of Forest Avenue;

Thirdly, for the convenience of market gardeners and others who do a lot of trucking over this highway;

Fourthly, because nearly all the streets in the Town are paved;

Fifthly, because Mr. Conover uses the paved streets paid for by other owners of property in the Town, and as a result should be required to pay the owners' portion of this pavement.

I understand Mr. Conover gave the right-of-way of the street known as Forest Avenue to the Town as a gift.

Previous to taking the evidence I had a personal view of the highway in company with Town officials, and I found it to be a fairly good gravelled road, such as would be sufficient for the purposes of Mr. Conover for some time; but owing to the pavement on both ends as heretofore described I am of opinion that this gap of gravelled road should be paved, provided the cost to be borne by Mr. Conover be not too burdensome.

His annual payments including those under the present appeal are as follows:

On Erie Street pavement	$233 58
On Township, Concession 1	81 85
On Concession 1 in Town	196 17
Total Annual Payments	511 60

After carefully considering the traffic; the location of the highway in question; the evidence and exhibits, with the other documents filed herein, and the estimated total cost of the proposed work of $3,832, and its apportionment by the Town, namely, $889.50, as its portion, and $2,942.50 as Mr. Conover's, I am of opinion that the Town's portion is too low, and Mr. Conover's is too high. I would, therefore, recommend that the estimated total amount of $3,832 be apportioned as follows:

The Town to pay 40 per cent	$1,532 80
and Mr. Conover to pay 60 per cent	2,299 20

The apportionment of the estimated cost to be amended accordingly.

I would further recommend that there be no costs to either party, and that $15.00 be paid in Law Stamps upon the Order.

Respectfully submitted,
(Sgd.) A. B. INGRAM,
Vice-Chairman.

Toronto, November 29th, 1923.

I agree that this report be adopted as the basis of the Board's Order.

(Sgd.) J. A. ELLIS,
Commissioner.

PROCEDURE FILE 8735.

In the matter of the petition of E. T. Biggs, and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Toronto of part of the Township of York (Gunn's Road and Northlands Avenue District).

Oct. 19th. Petition, etc., filed.

Nov. 8th. Hearing, pursuant to appointment, 11 to 11.10 a.m., at Board's Chambers. Mr. Commissioner Ellis will report to Board (under section 9, chapter 186, R.S.O.) that application should be granted, Applicants to draft Order and submit to Township and County of York.

Nov. 28th. Approved (by Township York) draft Order filed.

Dec. 4th. Order issued.

PROCEDURE FILE 8745.

In the matter of the petition of M. V. H. Francois and others, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the City of Windsor of part of the Township of Sandwich West (including Windsor Jockey Club property).

Oct. 25th. Petitions (3) filed.

Oct. 25th. Certified copy of resolution of City of Windsor filed.

Dec. 11th. County petition filed.

Dec. 19th. Hearing, pursuant to appointment, 10 a.m. to 1.30 p.m., Council Chamber, Windsor. Poll to be taken. Order to go if vote is in favour of annexation. Date to be fixed by party and submitted to Board. Order to be drafted by Mr. Davis and submitted to Mr. Whiteside.

PROCEDURE FILE 8748.

Between:

The Hydro-Electric Power Commission of Ontario and The Toronto and Niagara Power Co.,

Appellants,

—and—

The Corporation of the Township of Thorold,

Respondent.

(Assessment Appeal.)

Oct. 26th. Notice of Appeal filed.

Nov. 19th. Hearing, pursuant to appointment, 11 a.m. to 12 m., at Board's Chambers. Appeal allowed.

Nov. 29th. Notice of Appeal to Supreme Court filed.
Dec. 5th. Approved draft Order filed.
Dec. 10th. Order issued.

PROCEDURE FILE 8749.

In the matter of the application of the Town of Grimsby, under section 21 of "The Consolidated Municipal Act, 1922," for annexation to the said Town of part of the Township of North Grimsby.

Oct. 27th. Application and material filed.

Dec. 11th. Hearing, pursuant to appointment, 1.15 to 2.50 p.m., at Council Chamber, Grimsby. Application granted. Adjourned *sine die* for adjustment of assets and liabilities between the Town and Township. If not so adjusted either party may apply to the Board on the expiration of twenty-one days. Order to be drafted by Mr. McConachie and submitted to Mr. Washington for approval.

PROCEDURE FILE 8755.

In the matter of the petition of Thomas Hopper, and others, under section 9 of "The Local Improvement Act," against the proposed construction of a sewer on Ferguson Avenue, from Jackson Street to Hunter Street, in the City of Hamilton.

Oct. 29th. Petition, etc., filed.

Nov. 27th. Hearing, pursuant to appointment, 10.45 to 11.45 a.m., at Council Chamber, City Hall, Hamilton. Application dismissed. Cost of connecting Turner and Hopper private drains to sewer to be paid as part of cost of work; also Law Stamp on Order to be charged to cost of work.

Dec. 11th. Draft Order filed.

Dec. 13th. Order issued.

PROCEDURE FILE 8762.

Between:

The Orono Telephone Co., Ltd.,

Applicant,

—and—

The Port Hope Telephone Co., Ltd.,

Respondent.

(Application, under section 107 of "The Ontario Telephone Act, 1918," complaining that the respondent has paralleled the pole leads of the Applicant contrary to the provisions of section 78 of "The Ontario Telephone Act, 1918," and requesting that the Respondent be ordered to remove all poles and wires erected in contravention of the said provisions, and further that the Respondent be required to disconnect from the Orono Central Office its party line now connected at that point.)

Oct. 20th. Application filed.

Dec. 13th. Hearing, pursuant to appointment, 1.30 to 5.30 p.m., Town Hall, Port Hope. Judgment reserved.

PROCEDURE FILE 8768. (P. 455.)

Application by the City of Brantford, under section 5 of "The Planning and Development Act," for approval of plan of part of its urban zone.

Oct. 31st. Application, etc., filed.

Nov. 21st. Hearing, pursuant to appointment, 10.15 a.m.; 10.45 a.m. to 12.45 p.m., at Council Chamber, City Hall, Brantford. Application granted subject to certain amendments to plan. (See Reporter's Notes.)

PROCEDURE FILE 8781.

Between:

The Hydro-Electric Power Commission of Ontario and The Toronto & Niagara Power Co., Appellants,

—and—

The Municipal Corporation of the Township of Pelham, Respondent.

(Assessment Appeal.)

Nov. 9th. Notice of Appeal filed.

Nov. 19th. Hearing, pursuant to appointment, 11 a.m. to 12 m. Appeal allowed.

Dec. 5th. Draft Order filed and returned for approval.

Dec. 5th. Notice of Appeal to Supreme Court of Ontario filed.

Dec. 8th. Approved draft Order filed.

Dec. 10th. Order issued.

PROCEDURE FILE 8806.

Between:

D. S. Austin (trading as The Murray-Brighton Telephone Co.), Applicant.

—and—

The Municipal Corporation of the United Counties of Northumberland and Durham, Respondent.

(Application under section 7 of "The Obstruction on Highways Removal Act, 1920," for an Order apportioning the cost of change of location of certain poles on the Provincial County Road, No. 38, Township of Murray.)

Nov. 26th. Application, etc., filed.

Dec. 14th. Hearing, pursuant to appointment, 10 a.m. to 2.30 p.m., at Court House, Cobourg. Judgment reserved, pending inspection by Board's Supervisor of Telephone Systems.

PROCEDURE FILE 8844.

In the matter of The Toronto & Hamilton Highway Commission, and

In the matter of an expropriation of lands at Oakville, in the County of Halton,

Between:

C. F. Bulmer and Bulmers, Limited, Claimants.

—and—

The Toronto & Hamilton Highway Commission, Respondent.

Dec. 10th. Notice of Application filed.

Dec. 18th. Order for production issued to Respondent.

Dec. 18th. Order for Examination for Discovery issued to Respondent.

LIST OF APPLICATIONS RESPECTING PROVINCIAL RAILWAYS DURING 1923.

	Procedure File
Buffalo & Fort Erie Ferry & Railway Co.—Approval abandonment of certain portion of track at Erie Beach and change of location of station and waiting room	8790
Canadian Freight Classification No. 16—(Supplement No. 20)	4170
Cornwall Street Railway Co.—Approval Extension of Railway in Township of Cornwall	8795
Canadian Freight Classification No. 16—(Supplement No. 21)	4170
Fort William, City of—Approval operation of reconstructed single truck One-Man Cars, Nos. 252, 254, 256 and 258	8066
Fort William, City of—Approval plan of proposed loop, in lieu of "Y" at Yonge and Frederica Streets	8082
Fort William, City of—Approval electrification of Mount McKay & Kakabeka Falls Railway (P. 445)	8512
Fort William, City of—Approval plan proposed, revised location of loop on south west corner of Frederica and Yonge Streets, etc (P. 454)	8736
Freight (Can.) Classification No. 16—(Supplement No. 20)	4170
Freight (Can.) Classification No. 16—(Supplement No. 21)	4170
Guelph Radial Railway. (See "Hydro-Electric Power Commission of Ontario.")	
Hamilton, Grimsby & Beamsville Electric Railway Co.—Approval plan relocation of curves on spur line into factory of Dominion Canners, Ltd., at Grimsby	8070
Hamilton & Dundas Street Railway Co.—Mortgage to National Trust Co., Ltd.	8134
Highways Department of Ontario—See "Ontario Department of Highways."	
Humber River Bridge—Approval plans, etc (P. 446)	8515
Hydro-Electric Power Commission of Ontario—Approval operation of One-Man Two-Man Cars in Windsor, Walkerville, Ford and Sandwich (P. 432)	8239
Hydro-Electric Power Commission of Ontario—Approval Appointment of Wm. R. Robertson to prepare and issue tariffs of tolls	8733
Hydro-Electric Power Commission of Ontario—	
Guelph Radial Railway—Approval coal siding into Ontario Agricultural College	8059
Guelph Radial Railway—Approval revisions of	8962
Sandwich, Windsor & Amherstburg Railway—Revision and new construction of tracks in City of Windsor and Towns of Ford, Walkerville and Sandwich (P. 458)	8846
Toronto & York Radial Railway—	
Approval proposed siding on Scarboro Division at Stop 30	8071
Approval proposed siding on Mimico Division at Stop 26	8079
Approval relocation Finch's siding, Metropolitan Division (P. 402)	7668
Approval Don siding at York Mills, Metropolitan Division	8175
Approval Morgan's siding, Metropolitan Division	8176
Approval Mausoleum Crossover, Metropolitan Division	7727
Approval Bayles Switch, Metropolitan Division	7727
Approval passing siding at Bassett's, Metropolitan Division, Stop 65 (new stop 46)	8352
Approval passing siding, Mill Road, Metropolitan Division, Stop 48 (new stop 24)	8356
Approval passing siding Garden Avenue, Metropolitan Division, Stop 45 (new stop 20)	8357
Approval passing siding L.O.L. Orphanage, Metropolitan Division, Stop 51½ (new stop 29)	8358
Approval passing siding, Doane's Gate, Metropolitan Division, Stop 40 (new stop 15)	8359
Approval proposed siding, Lake Simcoe Ice Co., Metropolitan Division, Stop 33	8426
Approval proposed spur for Warren Bituminous Paving Co., Stop 46	8481
Approval terminal, Doncliffe Road, Yonge Street, Metropolitan Division	See 7792
Approval passing siding, Metropolitan Division, Stop 42 (new stop 17) Yonge Street	8530
Approval Canadian Freight Classification No. 16, Supplements 20 and 21.	4170
Windsor & Tecumseh Railway—Revision and new construction of tracks in City of Windsor and Towns of Ford, Walkerville and Sandwich. (P. 458)	8846
Kitchener, City of, Light Commissioners (Street Railway Department)—Approval track extensions into new car barns (P. 433)	8287
Kingston, City of—Approval reconstruction of cars to One-Man McCauley type	8369
Kingston, City of—Approval of "McCauley Life Guard" for use on One-Man P-A-Y-E cars	8398
Kitchener Light Commissioners—Approval plan two One-Man Safety cars and operation of same over Bridgeport Street Railway	8751
London Street Railway Co.—Approval rules and regulations governing operation of Safety One-Man cars	8065

	Procedure File
London Street Railway Co.—Approval plan "Peter Witt" type of cars, Nos. 200, 201 and 202	8496
Mount McKay & Kakabeka Falls Railway—electrification of (application by City of Fort William) (P. 445)	8510
National Trust Co., Ltd.—Mortgage to by Hamilton & Dundas Street Railway Co.	8134
Ontario Agricultural College—siding into (Guelph Radial Ry.)	8059
Ontario Department of Public Highways—Approval plan, etc., of bridge over Humber River (Bloor Street West) (P. 446)	8515
Port Arthur (City of) Public Utilities Commission of—Approval general street railway trackage (including Current River loop, Hodder Avenue loop, and loop at boundaries between Cities of Fort William and Port Arthur) (P. 440)	8454
Sandwich, Windsor & Amherstburg Railway—See "Hydro-Electric Power Commission of Ontario."	
Toronto & York Radial Railway—See "Hydro-Electric Power Commission of Ontario."	
Toronto, City of—Approval plans, etc., of bridge over Vale of Avoca, St. Clair Avenue (P. 439)	8446
Toronto Transportation Commission—	
Approval Dundas Street extension, Bay to Bond Street (P. 428)	8073
Approval of location and design of convenience at Queen Street and Nursewood Road	8100
Approval proposed alterations to 13 civic cars	8255
Approval plan rehabilitation of tracks on Dundas Street from Ossington Avenue to Bathurst Street (P. 435)	8388
Approval plan rehabilitation tracks on Front Street from Simcoe to Bathurst Street (P. 436)	8424
Approval plan rehabilitation of north track on Front Street, York Street to Simcoe Street (P. 437)	8425
Approval operation of One-Man cars	8441
Approval plan proposed track extension on Broadview Avenue, Danforth Avenue to Erindale loop (P. 438)	8442
Approval plan rehabilitation of tracks on Queen Street, Broadview Avenue to Don Bridge (P. 441)	8458
Approval plan of trackwork, Roncesvalles Avenue Car House (P. 442)	8459
Approval Dundas Street loop, at Vincent Street (P. 444)	8475
Approval trainmen's convenience, Victoria Park loop	8492
Approval trainmen's convenience, Bloor Street and Lansdowne Avenue loop	8493
Approval trainmen's convenience, Dundas and Vincent loop	8494
Approval trainmen's convenience, Bathurst Street south of Davenport Road	8495
Approval plan realignment Roncesvalles Avenue tracks at Harvard Avenue	8561
Approval plan rehabilitation of tracks on College Street, Spadina Avenue to McCaul Street (P. 448)	8570
Approval plan rehabilitation Harbord Street tracks, Ossington Avenue to Spadina Avenue (P. 450)	8647
Approval plan rehabilitation Dundas Crescent tracks, George Street to Sherbourne Street (P. 451)	8686
Approval plan rehabilitation Gerrard Street tracks, Sword Street to Broadview Avenue (P. 452)	8687
Approval plan of additional entrance Lansdowne Avenue Car House (P. 453)	8688
Approval plan of cash car siding on Front Street East, opposite General Office Building	8701
Approval plan of loop at Bloor and Parliament Streets, and double-track branch-off (P. 456)	8777
Approval plan of special track work, Gerrard Street and Carlaw Avenue (P. 457)	8778
Approval plan of track extensions on Weston Road, St. Clair Avenue to Northland, and Davenport Road to St. Clair Avenue (P. 459)	8870
Approval plan of track extensions on Davenport Road, Bathurst Street to Wychwood Park (P. 459)	8870
Approval plan of track extensions on Davenport Road, Dovercourt Road to Weston Road (P. 459)	8870
Approval plan to track extensions on Keele Street, Dundas Street to St. Clair Avenue (P. 459)	8870
Approval plan of track extensions on Dundas Street, Keele Street to Runnymede Road (P. 459)	8870
Approval Brakes and "H.B." Life Guard for use on its cars	8873
Approval discontinuance of protective devices at Lansdowne Avenue and Davenport Road crossing	8885
Windsor & Tecumseh Railway—See "Hydro-Electric Power Commission of Ontario."	

APPLICATIONS TO THE BOARD FOR VALIDATION OF BY-LAWS UNDER SECTION 295 OF "THE CONSOLIDATED MUNICIPAL ACT, 1922."

(Abbreviation "I.C." means Irregularities Cured.) (Abbreviation "I." means Irregularities *not* Cured.)

Municipality.	No. of By-law.	Purpose.	Amount.	Procedure File.
Amherstburg, Town of	B. 372	Extension of Water Mains	$17,200 00 (I.C.)	8339
Athens, Village of	294	Rebuilding High School	25,000 00 (I.C.)	8793
Brockville, Town of	B. 1337 (Con.)	Local Improvement	6,336 00	8084
" "	B. 1341	Sewers, Pumping Station, etc	42,000 00	8086
" "	B. 1342	Water Mains, etc	35,000 00	8087
" "	B. 1343	Improvement to Hydro-Electric System	57,645 00	8088
Bradford, Village of	477	Permanent Road Improvement	8,000 00	8174
Bowmanville, Town of	1069	Local Improvement (Sidewalks, etc.))	14,200 00 (I.C.)	8366
Bolton, Village of	582	Reconstruction of Town Hall	5,000 00	8655
" "	588	Public School Purposes	13,000 00 (I.C.)	8656
Brockville, Town of	B. 1379	Waterworks Pumping Plant	13,000 00	8780
Buchanan, Township of	32	Public School in School Section 3		(See P.F. 8838).
Colchester South, Township of	54	Widening Pavement in Police Village of Harrow	57,606 74 (I.C.)	8094
Comber, Police Village of		*See* "Township Tilbury West."		
Cobourg, Town of	1289	Local Improvement—Pavement	179,909 00(I.C.)	8256
Collingwood, Town of	941	Waterworks Purposes	25,000 00	8290
" "	954	Local Improvement—Sewers	2,600 00	8291
Campbellford, Town of	694	High School Purposes	65,000 00	8453
Carleton Place, Town of	891	Waterworks Extension	30,750 00	8487
" " "	893	High School Purposes	23,000 00 (I.C.)	8558
Clarke, Township of	836	Public School Purposes	7,000 00 (I.C.)	8658
Cochrane, Town of	304	Extending and Improving Telephone System	5,500 00 (I.C.)	8791
Coldwater, Village of	109	Continuation School	13,000 00	8845
Cobourg, Town of	1314	Local Improvements—Pavement, etc	113,829 98	8876
Dryden, Town of	153	Assistance to Red Cross Society for Hospital	5,000 00 (I.C.)	8209
Dorion Consolidated School, Board of Trustees of	2	School Purposes	3,000 00 (I.)	8389
Dresden, Town of	544	Local Improvement—Pavement	6,275 87	8486
" "	551	Local Improvement—Pavement	49,965 89 (I.C.)	8528
Dundas, Town of	951	Bonus Loan to Kaustine Co., Ltd	15,000 00 (I.)	8819
Etobicoke, Township of	1398	Public School Purposes in S.S. No. 11	116,500 00	8083
Eastview, Town of	429 (Con.)	Water Mains, etc	90,095 00 (I.C.)	8414
Fort Erie, Village of	523	Public School Purposes	40,000 00 (I.C.)	8092
Fort William, City of	2214	Public School Purposes	60,500 00	8150
Fort Frances, Town of	718	Local Improvements—Waterworks Extension	4,004 89 (I.C.)	8367
Ford City, Town of	405	Hydro-Electric Extension	26,000 00 (I.C.)	8380
Fort Erie, Village of	525	Sewer, etc	35,000 00 (I.)	8490
Fergus, Village of	658	Extension and Improvement to Hydro-Electric System	14,000 00	8572
Fort Erie, Village of	527	Electric Light Extension and Sidewalks	10,000 00 (I.C.)	8746

Georgetown, Town of	477	
Galt, City of	2004	
" "	2005	
Guelph, City of	1662	
Galt, City of	1944	
Gosfield South, Township of	295	
Galt, City of	1946	
" "	2019	(Con.)
Grimsby, Town of	550	
Galt, City of	1940	
" "	1751	
Gloucester, Township of	10	(1923)
Grimsby, Town of	561	(Con.)
Harrow, Police Village of		
Haileybury, Town of	584	
" "	587	
" "	588	
Hanover, Town of	355	
Innisfil, Township of	555	
" "	570	
Kingsville, Town of	506	
Kitchener, City of	1718	
" "	1723	
" "	1744	
Leamington, Town of	1044	(Con.)
Listowel, Town of	842	
Madoc, Village of	372	
Mimico, Town of	421	(Con.)
Mount Forest, Town of	754	
Mountain, Township of	462	
Midland, Town of	1111	
North Bay, Town of	658	
New Toronto, Town of	478	
Newmarket, Town of	517	
New Toronto, Town of	459	
North York, Township of	50	
Neebing, Municipality of	431	
Ottawa, City of	5171	
Oneida Township of	215	
Ottawa, City of	5400	
" "	5421	
" "	5192	
Owen Sound, City of	133	

Guarantee of Bonds of Georgetown Foundry and Machinery Co., Ltd	12,000 00	(I.C.)	8123
Local Improvements—Pavements	26,154 51	(I.C.)	8341
Local Improvements—Pavements	15,831 30	(I.C.)	8346
Local Improvements—Sewers	60,627 00	(I.C.)	8429
Local Improvement—Sewers	10,999 60	(I.C.)	8471
Public School Purposes	10,500 00	(I.C.)	8484
Local Improvement—Sewers, etc	3,136 24	(I).	8485
Local Improvement—Sewers	14,135 90	(I.C.)	8505
Waterworks Extension	60,000 00		8527
Waterworks Extension, etc	23,187 00	(I.C.)	8588
Waterworks Extension, etc	37,000 00	(I.C.)	8611
Public School Purposes	13,000 00	(I.C.)	8822
Local Improvement—Pavements, etc. *See* "Township Colchester South."	8,200 00	(I.C.)	8872
Local Improvements—Sidewalks	3,705 67		8455
Fire Hall, etc	15,000 00	(I.C.)	8622
Pumping Station, etc	20,000 00	(I.C.)	8624
Waterworks System	7,600 00	(I.C.)	8670
Public Park	18,000 00	(I.C.)	8202
School Building	20,000 00	(I.C.)	8552
Local Improvements—Pavement	27,958 96	(I.C.)	8377
Local Improvements—Sewers	43,666 49	(I.C.)	8542
Resurfacing pavements, etc	1,452 69	(I.C.)	8565
Local Improvements—Pavements, etc	123,730 69	(I.C.)	8666
Local Improvements	139,613 76		8114
Housing purposes	30,000 00	(I.C.)	8533
High School Purposes	12,000 00		8115
Local Improvements	41,000 00	(I.C.)	8116
Loan to Superior Knitting Mills, Ltd	14,000 00	(I.C.)	8580
School Purposes in North Mountain Consolidated School Section	20,000 00	(I.C.)	8689
Local Improvements—Sewers	15,940 00		8841
Sewers and Highway Improvement	20,000 00	(I.C.)	8173
Fire Protection Appliances	5,000 00	(I.C.)	8218
Local Improvement—Pavements	94,000 00	(I.C.)	8233
Completion Waterworks System	13,000 00		8285
Waterworks Construction, etc	130,000 00	(I.C.)	8520
Community Hall, etc	3,500 00		8740
Housing Purposes	45,000 00		8144
Public School Purposes, School Section 7	2,000 00		8154
Collegiate Institute Purposes	9,000 00	(I.C.)	8157
Public School Purposes	9,500 00	(I.C.)	8158
Hydro-Electric Extension	7,500 00		8169
Fire Truck, etc	16,000 00	(I.C.)	8190

APPLICATIONS TO THE BOARD FOR VALIDATION OF BY-LAWS UNDER SECTION 295 OF "THE CONSOLIDATED MUNICIPAL ACT, 1922."—Continued

(Abbreviation "I.C." means Irregularities Cured.) (Abbreviation "I." means Irregularities *not* Cured.)

Municipality.	No. of By-law.	Purpose.	Amount.	Procedure File.
Owen Sound, City of	136	Exhibition Bldg	18,000 00 (I.C.)	8191
" " "	141	Extension of Gas System	40,000 00 (I.C.)	8192
Oshawa, Town of	1631	Local Improvements—Pavements	30,997 00 (I.C.)	8211
" "	1637	Completion of Trunk Sewer	20,000 00 (I.C.)	8212
Oakville, Town of	676	Local Improvement—Pavement, etc	31,200 00 (I.C.)	8274
" "	645 (amended)	Skating and Curling Rink in Victoria Park	12,000 00 (I.)	8597
" "	687 (amended)	Local Improvement—Sewers	2,800 00 (I.C.)	8598
Orillia, Town of	813	Local Improvement—Pavement	18,000 00 (I.C.)	8613
" "	814	Local Improvement—Pavement	81,493 00 (I.C.)	8614
Owen Sound, City of	1235	Local Improvement—Sidewalks	16,071 17	8618
" " "	1236	Local Improvement—Sewers	11,181 05	8619
Oshawa, Town of	1664	Water Mains	18,100 00	8628
Port Dover, Village of	203	Local Improvement—Sewers	24,000 00 (I.C.)	8069
Paris, Town of	742	Local Improvement—Pavements	24,179 11 (I.C.)	8091
Penetanguishene, Town of	599	Bonus Loan to Adams Shoe Co	45,000 00 (I.)	8096
" "	626	Waterworks Extensions	24,000 00	8122
" "	625	Hydro-Electric	10,000 00 (I.C.)	8234
" "	628	Local Improvement—Pavement	21,350 00 (I.C.)	8235
" "	629	Sidewalk, etc	2,003 25 (I.C.)	8236
Pembroke, Town of	1055	Waterworks Extension	20,822 23 (I.C.)	8384
Port Credit, Village of	135	Local Improvement—Waterworks Extension	46,507 58 (I.C.)	8395
Peterborough, City of	2456	Sewers and Private Drains	13,700 00 (I.C.)	8562
" "	2457	Sewers and Private Drains	8,000 00 (I.C.)	8563
" "	1906 (amended by 2094 and 2466.)	Electric Substation, Waterworks, etc	50,000 00	8567
" "	2469	Hydro-Electric Extension	10,000 00 (I.C.)	8589
Port Perry, Village of	815	Public School Purposes	4,000 00 (I.)	8713
Preston, Town of	861	Extension to Electrical System	35,000 00	8828
Riverside, Town of	106 (Con.)	Local Improvement—Water Main	5,257 83 (I.C.)	8411
Renfrew, Town of	1097 (Con.)	Local Improvement—Roadway, etc	22,465 05	8678
Rainy River, Town of	266	Reconstruction of Telephone System	5,500 00	8739
Renfrew, Town of	1103	Erection of New Collegiate and Vocational School	200,000 00	8786
Rear of Yonge and Escott, Township of	514	Rebuilding Athens High School	15,000 00 (I.C.)	8794
Rolph, Buchanan, Wylie and McKay, United Townships of	32	Purposes of Public School Board in S.S. 3, Tp. of Buchanan	19,000 00 (I.C.)	8838
Sandwich West, Township of	590	Local Improvement—Pavement	40,028 65 (I.C.)	8095
St. Catharines, City of	3366 (amended)	Collegiate Institute Purposes	480,000 00 (I.C.)	8099
Stamford, Township of	12 (1923) (Con.)	Local Improvements	9,700 00 (I.C.)	8185

Sandwich, Town of	1128	(Con.)	Local Improvement—Extension of Certain Streets	25,934	50	8248
Sudbury, Town of	763		Local Improvement—Sidewalks	1,796	52	8276
" "	764		Local Improvement—Pavements	9,717	54	8277
Smith's Falls, Town of	1559	(Con.)	Local Improvement—Concrete Walks, etc	6,582	70	8386
Scarboro, Township of	1169		Local Improvement—Pavement	4,051	60 (I.C.)	8421
Sturgeon Falls, Town of	520	(Con.)	Local Improvements—Sidewalks and Sewers	5,900	00 (I.C.)	8509
Sandwich, Town of	1136	(Con.)	Local Improvements—Sewers, Water Mains and Lights	22,709	61	8541
Smiths Falls, Town of	1572		Purchase of Ward's Island for Waterworks Purposes	20,000	00 (I.C.)	8700
Scarborough, Township of	1220		Branch Water Mains in Areas Nos. 1 and 2	110,102	92 (I.C.)	8855
" "	1222		Branch Water Mains in Areas Nos. 1 and 2	69,052	21 (I.C.)	8857
" "	1223		Branch Water Mains in Areas Nos. 1 and 2	788	60 (I.C.)	8859
Tilbury West, Township of	349		Widening Pavement in Police Village of Comber	26,037	50 (I.C.)	8093
Tottenham, Village of	313		Waterworks Improvements	10,000	00 (I.C.)	8146
Tisdale, Township of	219		Incinerator Plant	7,000	00 (I.C.)	8161
Tecumseh, Town of	61	(Con.)	Local Improvements	20,512	76 (I.C.)	8165
Tilbury West, Township of	367		Road Improvements	40,000	00	8231
Trenton, Town of	1378		Local Improvements—Pavements	306,359	21 (I.C.)	8297
Toronto, City of	9567		Local Improvements—Water Mains	145,622	21 (I.C.)	8350
Thessalon, Town of	6	(1923)	High School in Union S.S. No. 1	30,000	00	8355
Tecumseh, Town of	62		*Re* Separation from Tp. Sandwich East	9,365	75	8378
Toronto, City of	9568		Local Improvements—Water Mains	15,623	32 (I.C.)	8387
" "	9546		Revenue Mains	150,000	00 (I.C.)	8416
" "	9584		Local Improvement—Sewers	201,044	29 (I.C.)	8422
Thorold, Town of	805		Local Improvement—Pavement	6,065	10 (I.C.)	8488
" "	804		Local Improvements	20,192	92	8553
" "	811		Local Improvements	4,679	56	8554
Toronto, Township of	983		Public School Purposes	16,000	00 (I.C.)	8579
Tisdale, Township of	248		Public School Purposes, S.S. No. 1	25,000	00	8585
" "	249		Public School Purposes, S.S. No. 1	75,000	00	8586
Thessalon, Town of	13	(1923)	High School Purposes	30,000	00	8615
Thornbury, Town of	9	(1923)	Waterworks System	18,000	00 (I.C.)	8657
Teck, Township of	119		Waterworks System	60,000	00 (I.C.)	8664
Trenton, Town of	1404		Local Improvements—Pavements, etc	76,333	28 (I.C.)	8738
Tisdale, Township of	261		Purposes of Public School Board in S.S. No. 2	8,000	00 (I.C.)	8840
Wingham, Town of	901	(1922)	Water Mains, etc	13,000	00 (I.C.)	8152
Whitby, Town of	1137		Guarantee of Bonds of Canada Fence Co., Ltd	50,000	00 (I.)	8197
Wilmot, Township of	599		Telephone System	18,000	00	8324
Whitby, Town of	1139		Local Improvement—Sewers, etc	55,400	00 (I.C.)	8376
Wingham, Town of	916		Local Improvement—Pavement	30,300	00	8390
" "	915		Local Improvement—Pavement	27,460	00	8391
Waterloo, Town of	751		Local Improvement—Pavement	104,070	32 (I.C.)	8400
" "	752		Local Improvements—Sidewalks	10,114	10 (I.C.)	8401
" "	753		Local Improvements—Sewers	27,161	64 (I.C.)	8402
Walkerville, Town of	947	(Con.)	Local Improvement—Pavements	35,181	25 (I.C.)	8403
Wingham, Town of	921		Local Improvement—Pavements	27,460	00	8472

APPLICATIONS TO THE BOARD FOR VALIDATION OF BY-LAWS UNDER SECTION 295 OF "THE CONSOLIDATED MUNICIPAL ACT, 1922."—Continued

(Abbreviation "I.C." means Irregularities Cured.) (Abbreviation "I." means Irregularities *not* Cured.)

Municipality.	No. of By-law.	Purpose.	Amount.	Procedure File.
Wingham, Town of	922	Local Improvement—Pavements	30,300 00	8473
Welland, City of	324	Local Improvements	33,565 31 (I.C.)	8559
Woodstock, City of	1452	Public School Purposes	70,000 00 (I.C.)	8843
York, Township of	7019	Public School Purposes	75,000 00 (I.C.)	8060
" "	7102	Street Widening	4,255 34 (I.C.)	8571
			$6,061,954 16	

LIST OF BY-LAWS APPROVED BY THE BOARD UNDER SUBSECTION (3) OF SECTION 400 OF "THE CONSOLIDATED MUNICIPAL ACT, 1922."

Municipality	No. of By-law	Purpose	Amount	Procedure File.
Brockville, Town of	B. 1343	Extension, etc., to Hydro-Electric System	$57,645 00	8121
Belleville, City of	2451	Improvements to its Gas Works System	15,000 00	8332
Brockville, Town of	B. 1379	Additions to Waterworks Pumping Plant	13,000 00	8779
Burlington, Town of	512	Waterworks Extension	10,700 00	8812
Dunnville, Town of	11 (1923)	Hydro-Electric Plant	10,000 00	8723
Elmira, Town of	486	Extension and Improvement of Waterworks System	16,500 00	8557
Etobicoke, Township of	1466	Extension to Hydro-Electric System	40,000 00	8691
Ford City, Town of	405	Hydro-Electric Extensions	26,000 00	8380
Galt, City of	1940	Waterworks Extension	23,187 00	8153
Grimsby, Town of	544	Waterworks Extension	60,000 00	8284
Gravenhurst, Town of	P. 92	Waterworks Extension	5,000 00	8286
Grimsby, Town of	550	Waterworks Extension	60,000 00	8506
Goderich, Town of	36 (1923)	Electric Light Extension	20,000 00	8800
Havelock, Village of	333	Hydro-Electric Extension	4,000 00	8080
Hamilton, City of	2783	Waterworks Extension	143,797 00	8280
Harriston, Town of	559	Electric Power Distribution System	5,000 00	8439
Hanover, Town of	355	Waterworks Extension	7,600 00	8607
Hamilton, City of	2856	Water Mains	144,034 00	8633
Hespeler, Town of	469	Extension of Hydro-Electric System	5,000 00	8690
Hespeler, Town of	474	Extension and Improvement to Waterworks System	13,000 00	8799
Kitchener, City of	1093	Electric Light Purposes	80,000 00	8132
Leaside, Town of	131	Extension of Sewage System	3,500 00	8479
" "	132	Extension to Waterworks	5,000 00	8480

London, City of	7116		Waterworks Extension	75,000 00	8503
" "	7117		Electric Light Extension	175,000 00	8504
Mitchell, Town of	105	(1923)	Waterworks Extension	1,000 00	8445
North York, Township of	7017		Extension to Hydro-Electric Power Distribution System	50,000 00	8136
Penetanguishene, Town of	625		Hydro-Electric Extension	10,000 00	8166
Port Colborne, Village of	2	(1923)	Hydro-Electric Extension	14,000 00	8213
Peterborough, City of	2451		Waterworks Extension	20,000 00	8225
Port Colborne, Village of	8	(1923)	Waterworks Extension	6,000 00	8229
Pembroke, Town of	1055		Waterworks Extension	20,822 23	8383
Peterborough, City of	2469		Electric Extension	10,000 00	8447
Pembroke, Town of	1077		Waterworks Extension	17,473 10	8599
Paris, Town of	748		Electric Light Extension	15,000 00	8652
Preston, Town of	861		Extension to Electric Distribution System	35,000 00	8756
Rockland, Town of	330		Completion and Extension of Electric Power Distribution	8,000 00	8337
Riverside, Town of	110A		Hydro-Electric Extension	13,000 00	8417
St. Thomas, City of	2564		Purifiers at Gas Works	20,000 00	8304
Stamford, Township of	40	(1923)	Extension to Hydro-Electric System	25,000 00	8325
St. Mary's, Town of	474		Waterworks Improvements, etc	10,000 00	8659
" "	475		Extension to Electrical System	10,000 00	8758
Tavistock, Village of	176		Waterworks Extension	3,264 42	8250
Toronto, City of	9546		Waterworks Extension	150,000 00	8305
Thorold, Town of	788		Hydro-Electric Extension	5,000 00	8349
Thessalon, Town of	10	(1923)	Waterworks Extension	11,000 00	8470
Tecumseh, Town of	91		Extension to Hydro-Electric System	7,500 00	8727
Toronto, City of	9880		Extension to Hydro-Electric System	2,031,000 00	8877
Woodbridge, Village of	442		Waterworks System	3,000 00	8137
Walkerville, Town of	949		Hydro-Electric Extension	50,000 00	8292
Woodstock, City of	1422		Hydro-Electric Extension	20,000 00	8335
York, Township of	7017		Hydro-Electric Extension	50,000 00	8136
" "	7062		Hydro-Electric Extension	150,000 00	8323
" "	7376		Hydro-Electric Power Extension	200,000 00	8517
				$3,984,022 75	

APPROVAL OF DEEDS AND MORTGAGES UNDER SECTION 11 OF "THE PLANNING AND DEVELOPMENT ACT."

Parties	Description of Property	Procedure File.
Baker, Myrtle Lena to Peter Ker	Part south part Lot 86, north on Talbot Road East, Tp. Malahide	8674
Ker, Peter; Baker, Myrtle Lena	*See* "Baker."	

LIST OF APPLICATIONS FILED WITH THE BOARD FOR APPROVAL OF PLANS UNDER "THE LAND TITLES ACT," AS AMENDED.

Name of Owner	Description of Property	Procedure File.
Aitchison, James	Lots 58 and 59 (Plan M. 396, Land Title Office, Toronto), Town of Weston	8404
Boothby, Thomas G	Part Lots 14 and 15, Con. 1, Tp. Franklin, District of Muskoka	8160
Ede, John C	Lot 39, Plan M. 3, Temiskaming, Tp. Calvert, District Cochrane	8750
Toronto, City of	Abbott Avenue—between Western Avenue and Indian Road (Plan M. 41)	8747
Young, G. A	North-west quarter, east-north-east quarter of south half, Lot 1, Con. 2, Tp. Mountjoy, District Cochrane	8543

APPROVAL OF PLANS UNDER "THE REGISTRY ACT."

(Subsection 14 of section 81, as enacted by 7 Geo. V, Chap. 30, O.S. 1917.)

District	Description of Property	Procedure File.
Pelham, Township of	Tp. Lot 14, and south halves Lots 15 and 16, Con. X, including Police Village of Fenwick	8807
Fenwick, Police Village of	*See* "Pelham Township."	

LIST OF APPLICATIONS FILED WITH THE BOARD FOR APPROVAL OF PLANS UNDER "THE PLANNING AND DEVELOPMENT ACT."

Name of Owner	Description of Property	Procedure File.
Burdick, Elizabeth, *et al*	Part Farm Lot 128, and part Lots Nos. 3, 4, 5 and 6, Town of Riverside, Co. Essex, according to Plan 829	8064
Babcock, Rhoda	Part Lot 23, Cons. 1 and 2, Township Grantham, etc. (Read's Island)	8131
Barton, Arthur J	Part Lot 4, Con. 5, west of Yonge Street, and Lots "D" and "E" Reg. Plan 500, Tp. of York, Town of Weston, Co. York	8183
Barrie, James C	Part Broken Lot 23, Con. 4, Tp. Innisfil, Co. Simcoe	8246
Boulton, Emma, *et al*	Part Lots 24 and 25, Con. 1, east of Yonge Street, Tp. and Co. York	8309
Border Cities Co., Ltd	Part Farm Lot 54, Con. 1, Tp. Sandwich West, etc., Co. Essex	8310
Billings, H. B., *et al*	("Bon Homme Point"), part south half Lot 18, Junction Gore, Tp. Gloucester	8333
Billings, H. B., *et al*	("Billings"), part Lot 16, Junction Gore, Tp. Gloucester	8334
Bartleman, J. P., *et al*	Part south-west quarter of east south-east quarter and south half Lot 12, Con. 3, Tp. Tisdale, District Cochrane	8440
Burdick, Elizabeth	Farm Lot 128, part Lots 6, 7, 8 and 9, Reg. Plan 829, Town of Riverside, Co. Essex	8462
Boivin, A	Lot 75, Reg. Plan M. 3, Tp. Calvert, District Temiskaming	8463
Ballard, Nicholas, *et al*	Part Farm Lots 139 and 138, Con. 1, Tp. Sandwich East, Town of Riverside	8671

		Procedure File
Bethune, Geo. H., *et al*	Part Lot 2, Con. 2, Tp. Barton, and Lots "A", "B" and "C" Reg. Plan 613, City of Hamilton	8734
Brantford, City of	Part of Urban Zone, Plan 455	8768
Colquhoun, Frances Bertha	Part Lot 6, Con. 1, Tp. Cornwall, Co. Stormont	8316
Chartered Trust and Executor Co.	Part Lot 45, Con. 1, Tp. Markham, Co. York, "Elmwood Park"	8322
Chisholm, James H	Part Lots 4 and 5, Con. 2, Tp. Markham, Co. York	8329
Cleaver, J. Hughes	Part Lots 14 and 15, Con. 4, S.D.S. T. Nelson, Co. Halton	8385
Clarke, Wm. E	Part Lot 8, Con. 1, Tp. Whitby East, now in Town of Oshawa	8415
Cram, Robert H., *et al*	South half Lot 14, Jct. Gore, Tp. Gloucester, Co. Carleton	8592
Casey, Wm., and Geo. W. Daly	Part Lots 22 and 23, Con. 1, formerly in Tp. Kingston, now in City of Kingston	8672
Cusin, Emile	Part Tp. Lot No. 26, B.F. Con., Tp. Bertie, and part Lots 267 to 270, Plan 62 of said Township	8775
Christlaw, Geo. H	Lot 8, Con. 3 (unorganized), Tp. Franklin	8785
Canadian Chautauqua Institution, Ltd., *et al*	Part Lots 7 and 8, Con. "A," Big Island or Tobin's Island, in Lake Rosseau, Tp. Medora, District Muskoka	8875
Donnelly, Edward H	South half Lot 1, Reg. Plan 54, Town of Sandwich, Co. Essex	8223
Davidson, F. J. A., *et al*	Lots 8 and 9, Plan 1176, Tp. Etobicoke, Co. York	8382
Duncan, Margaret J	Part Sub-lot 36, Leonard's Plan (October 9, 1855); part Tp. Lot 125, Tp. Stamford, Co. Welland	8511
Everson, Thomas H	Parts Lots 6 and 7, Con. 5, southern division fronting towards Lake, Tp. Etobicoke, Co. York	8307
Fort William, City of	App. By-law 2217, opening of ten-foot lane north side of Lot 359 in Wiley Addition (section 479 "Municipal Act")	8135
Ferrier, A	Part Lot 6, Range 1, Kingsville Reserve, Township Etobicoke, Co. York	8532
Fearman, Frances L., and Sydney Lewell Heaton	Lots 16, 17, 18 and 19, and Lot "A" and part Lot "1," in C. T. Grantham Survey, and Lots 14, 15, 16, 17, 18, and part Lot 13 in Billing and Fearman Survey, City of Hamilton, Co. Wentworth (narrow highway)	8792
Genest, Albert J	Part Lot 2, west of Huron-Church Line Reg. Plan 54, Town of Sandwich, Co. Essex	8224
Ganley, Jos. F	Part west half Lot 8, Con. 16, Tp. Sunnidale, Co. Simcoe	8308
Galvin, D. T	Part Farm Lots 141, 142, Con. 1, Town of Riverside, and Tp. Sandwich East, Co. Essex	8534
Garner, Mrs. Adeline	Part east half Lot 9, south of Radical Road, Con. 1, Tp. Woodhouse, Co. Norfolk (narrow highway)	8546
Howard, George	Part Lot "K. 52" District Kenora, Village of Malachi	8126
Hickey, Margaret	North half Lot "G," Con. "C," Rideau Front, Tp. Nepean, now in City of Ottawa	8331
Henshaw, J. H., *et al*	"Cherry Gardens," part Lot 2, Con. 1, of southern division of Lot 189, and part 188, Reg. Plan 2123, Co. York, Tp. Etobicoke	8651
Hallam, John	Part Lot 28, Con. "B," Tp. Scarborough, Co. York	8653
Hughes, Joseph Albert	Part south 1094, near Ingolf, District Kenora	8719
Hughes, Albert G	Part south 1093, near Ingolf, District Kenora	8720
Heaton, Sydney Lewell, and Frances L. Fearman	*See* "Frances L. Fearman."	
Islington Land Company	Part Lot 19, Con. 1, northern division, Tp. Etobicoke, Co. York	8631
Iler, Forest H	Part Farm Lot 39, Con. 1, Tp. Colchester South, Co. Essex	8643
Jones, Archibald H., *et al*	Part Farm Lot 63, Con. 2, Tp. Sandwich West, Co. Essex	8253

		Procedure File
James, J. T	Blocks "C" and "G" Reg. Corporation Plan of Village of Crystal Beach	8560
Lehnen, Emanuel	Part Lot No. 1, Plan 267, Tp. Waterloo, Co. Waterloo	8354
Laskey, Charles	*See* "McMann, James E."	
Melrose Realty Co., Ltd	Part Lot 7, Con. 1, west of Yonge Street, Tp. York (now part City of Toronto)	8061
Melrose Realty Co., Ltd	Parts Lot 7 and 8, Con. 1, west of Yonge Street, Tp. York	8062
Mooney, Nicholas M	Part Block "A," Reg. Plan M. 304, Toronto, being part Lot 5, Con. 5, west of Yonge Street, Tp. North York, Co. York	8114
Morris, Mary A	Part north half Lot 1, Reg. Plan 54, Town of Sandwich, Co. Essex	8222
Miller, Geo	Part Lot 12, Con. II, Tp. Whitby East, Co. Ontario (now in Town of Oshawa)	8251
Manning, Wm	Part Lot 10, Con. "A," fronting towards Humber River, Tp. Etobicoke	8306
Malott, Wm	Part Farm Lot 6, Con. I, Tp. Gosfield South, Co. Essex	8343
Merrill, Matilda, *et al*	*See* "John D. McDonald Estate."	
Meisner, John L	Resort L.K. 173 on Malachi Lake, and adjoining C.N. Railway on south and east Malachi Station, District Kenora	8886
McColl, D. B., *et al*	Part Block "G," Town of Sandwich, Co. Essex	8187
McCallum, W. J	Part Lot "G," Con. 1, fronting Lake Ontario, Town of Mimico, Tp. Etobicoke	8245
McDonald, Neil, *et al*	Lots 1, 2, 3 and 4, east side Saugeen Street and north of Denham Street, etc., Town of Kincardine, Co. Bruce	8317
McKittrick Properties, Ltd., *et al*	"Elmhurst," being subdivision of Gore of Ancaster, now in City of Hamilton	8583
McDonald, John D., Estate of	Part Lots "E" and "F," Con. 7, Township Sombra, Co. Wentworth	8584
McMahon, James E., and Charles Laskey	Lot 12, Range 4, Tp. Sarnia, Co. Lambton	8692
McCutcheon, Henry	Part Park Lots 5 and 6, north-westerly side Buttonwood Avenue, Reg. Plan 652, Tp. York	8724
McNeill, William	Part Lot 21, Con. 13, Tp. McNab, Co. Renfrew	8850
Northview Land Co., Ltd	Part Parcel 1121, East York, being part Lot 11, Con. 1, east of Yonge Street, Tp. North York, Co. York	8147
Oxley, James Morrow	Part Lot 13, Broken Front Range, Credit Reserve, Tp. Toronto, Co. Peel	8412
Ontario Freehold Lands, Ltd	Part Lot 21, Con. 1, west of Yonge Street, Tp. North York, Co. York	8630
Pelmo Realty Co., Ltd	Part Lots 8 and 9, Con. 5, west of Yonge Street, Tp. North York	8138
Pelmo Realty Co., Ltd	Part Lot 10, Con. 5, west of Yonge Street, Tp. North York	8139
Provident Investment Co	Part Lots 1 and 2, Reg. Plan 310, York, Tp. York	8186
Patten Bros., Ltd	Northerly 17½ acres, more or less, of Field Lot "A," and Farm Lot No. 80, second Con. Tp. Sandwich West, Co. Essex	8573
Rabinowitch, Simon	Lot 24, Con. "C," Township Scarborough	8078
Roberts, William J	Part Lot 5, Range 1, Kingsmill Reserve, Tp. Etobicoke	8141
Rowantree, Angelina Duncan	Part Lots 22, 23 and 24, Con. 7, west of Yonge Street, Tp. North York	8151
Robertson, James W	Part west half Lot 13, Con. 7, Tp. Verulam, Co. Victoria	8219
Riverside, Town of	Plan of proposed streets and limits thereof, Plan 434	8338
Richards, Harry Francis	Plan part Farm Lot 114, Town of Riverside, Co. Essex	8549
Reaume, U. G., *et al*	Part Farm Lot 105, Town of Ford City, Co. Essex	8617
Rolph, John H. (Trustee)	Part Lot 30, Con. 2, Tp. Humberstone, and Village Humberstone, and part Lots 19, 20 and 45, Reg. Tp. Plan No. 33, and Reg. Village Plan No. 10	8660

		Procedure File
Stephens, E. T., Ltd.	Part Lots 27 and 28, Con. 1, Tp. Markham, Co. York	8055
Summerfeldt, Georgina, *et al*	Part Lots 8 and 9, Con. 16, Tp. Sunnidale, Co. Simcoe	8057
Sibald, John D	Part Lots 2 and 3, Con. 8, Tp. Georgina	8112
Sturgeon Point	Approval Plan of Urban Zones	8120
Synod of Ontario	Part Lot 1, Village of Portsmouth, Co. Frontenac	8244
Smith, Joseph Henry	Lots 5, 6 and 7, Plan 2069, Tp. York, Co. York	8351
Smith, Robert A	Part Farm Lots 80, 81 and 82, 3rd Con. Tp. Sandwich West, Co. Essex	8540
Stephens, E. T., Ltd	Part Lot 28, Con. 1, Tp. Markham, Part Reg. Plan 2368, Co. York	8675
Slater, Esther, Estate of	Part Block "S," and Blocks "T," "U" and "V," South Bayswater, Reg. Plan No. 58, City of Ottawa	8783
Schumacher, Fred. W	Part south-east quarter of south half Lot 1, Con. 2, Tp. Mountjoy, District Cochrane	8813
Taylor, Edward	Lots 4 and 5 and part Lot 6, Reg. Plan 205, City of Toronto	8456
Taylor, James	Parcel 1723 in Lot 30, Con. "B," fronting Humber River, Tp. Etobicoke, Co. York	8510
Tripp, William	Part Broken Lot 27, Con. 1, Tp. Tiny, Co. Simcoe	8587
Urban Zones	*See* "City of Brantford." (P.F. 8768. P. 455.)	
Urban Zones	*See* "Town of Riverside." (P.F. 8338. P. 434.)	
Urban Zones	*See* "Village of Sturgeon Point." (P.F. 8120. P. 430.)	
Watson, W. F., *et al*	Part east half Lot 6, Con. 16, Tp. Sunnidale, Co. Simcoe	8058
Whyte, Edwin	Part Lot 9, Broken Front Con. Tp. East Flamboro, Co. Wentworth	8076
Watson, W. H	Part Lot 4, Con. 14, Tp. Sunnidale, Co. Simcoe	8461
Weymouth Gardens, Ltd	Part Lot 14, Con. 2, west of Yonge Street, Tp. York, Co. York	8679
Young, A. W	Lot "E," Con. 8, Tp. Sombra, Co. Lambton	8081

MISCELLANEOUS MATTER.

ANNEXATIONS.

	Procedure File.
Timmins, Town of—Annexation to of part Township Tisdale (including Moneta School site). Petition D. Pierce, *et al* (P. 427)	8056
Merritton, Town of—Annexation to of part Township Grantham. Petition A. B. Fee, *et al*	8075
Weston, Town of—Annexation to of part Township North York. Petition Satin Finish Hardwood Flooring, Ltd	8162
Weston, Town of—Annexation to of part Township North York. Petition S. D. Denham, *et al*	8201
Hamilton, City of—Annexation to of part Township Barton. Petition Henry Dirks, *et al*	8452
Weston, Town of—Annexation to of part Township York. Petition H. L. Trimble, *et al*	8568
Timmins, Town of—Annexation to of part Township Tisdale (Rochester Townsite). (P. 449)	8629
Toronto, City of—Annexation to of part Township York (Oriole Parkway). Petition Upper Canada Estates, Ltd	8682
Toronto, City of—Annexation to of part Township York (Gunn's Road and Northlands Avenue District). Petition E. T. Biggs, *et al*	8735
Windsor, City of—Annexation to of part Township Sandwich West (including Jockey Club property). Petition M. V. H. Francois, *et al*	8745
Grimsby, Town of—Annexation to of part Township North Grimsby (Robinson Street South, and the Mountain Side)	8749
Kitchener, City of—Annexation to of Township Waterloo (Spring Street Area). Petition Alfred Conner, *et al*	8835
Kitchener, City of—Annexation to of part Township Waterloo (King Street East area). Petition Samuel Schwitzer, *et al*	8836

ARBITRATIONS.

	Procedure File
Brockville, Town of—Approval Sinking Fund Investment By-law B. 1339 in debentures under By-law B. 1337	8085
Bulmer, C. F., *et al.*, *vs.* Toronto Hamilton Highway Commission—Compensation for lands taken at Oakville, Co. Halton	8844

ASSESSMENT APPEALS.

Lever Bros., Ltd., *vs.* City of Toronto (Income)	$130,000	8117
John Northway & Son, Ltd., *vs.* City of Toronto (Income)	45,022	8118
Canadian General Electric Co., Ltd., *vs.* City of Toronto (real property)	1,601,172	8119
Parry Sound Lumber Co., Ltd., *vs.* Town of Parry Sound	23,675	8254
Northern Bolt, Screw and Wire Co., Ltd., *vs.* City of Owen Sound	40,000	8635
Stuart, Wm. C., *vs.* Village of Belle River (Essex Co.)	48,900	8697
Stover, Samuel, *vs.* Village of Belle River (Essex Co.)	25,600	8698
Hydro-Electric Power Commission of Ontario, *et al.*, *vs.* Township of Thorold	47,100	8748
Hydro-Electric Power Commission of Ontario, *et al.*, *vs.* Township of Pelham	47,900	8781

BILLS FINANCIAL.

(Referred to the Board under Rule 61*a* of the House.)

East Flamborough, Township of	Bill No. 22—An Act Respecting	8182
Penetanguishene, Town of	Bill No. 33— " " "	8206
Hawkesbury, Town of	Bill No. 42— " " "	8207
Sturgeon Falls, Town of	Bill No. 47— " " "	8221

BRIDGES, RELIEF FROM REBUILDING OF.

(Section 460 (9) of "The Consolidated Municipal Act, 1922.")

Fort William, City of—Bridge over Neebing River at Prince Arthur Boulevard	8321
Ekfrid, Town of—Over creek on River Road through south half Lot 3, Fifth Range, and north half Lot 3 in Sixth Range, south of Longwoods Road, etc	8636
Ekfrid, Town of—Over creek on River Road, through Lot 17, Third Range, south of Longwoods Road	8637

DETACHMENT OF FARM LANDS FROM TOWN OR VILLAGE.

(Section 21*a* of "The Consolidated Municipal Act, 1922.")

Durham, Town of—Petition Thomas Young	8257
Listowel, Town of—Petition William E. Davidson, *et al.* (P. 443)	8281
Palmerston, Town of—Petition James McMillan, *et al*	8296
Harriston, Town of—Detachment of certain Farm Lands, and annexation of same to Township of Minto	8721

EXTENSION DEBENTURE ISSUE PERIOD (MUNICIPAL BY-LAWS).

(Section 288 (9), (10) of "The Consolidated Municipal Act, 1922.")

St. Catharines, City of—By-law 3366, amended, Collegiate Institute	$480,000 00	8098
Brantford, City of—By-law 1599, amended, Hospital, etc	185,000 00	8228
Scarborough, Township of—By-law 1046, amended, Cemetery, etc	25,000 00	8460A
Peterborough, City of—By-law 1906, Electrical Sub-station	50,000 00	8537
Tilbury, Town of—By-law 179, Housing Purposes	50,000 00	8648
St. Catharines, City of—By-law 3326, amended, Cemetery	30,000 00	8696
Guelph, City of—By-law 1427, Housing	250,000 00	8744
Paisley, Village of—By-law 710, amended, Hydro-Electric Power Distribution Plant	16,000 00	8767
Scarborough, Township of—By-law 1220, Branch Water Mains in Areas 1 and 2	110,102 92	8854

		Procedure File
Scarborough, Township of—By-law 1222, Branch Water Mains in Areas 1 and 2	69,052 21	8856
Scarborough, Township of—By-law 1223, Branch Water Mains in Areas 1 and 2	788 60	8858
Belleville, City of—By-law 2115, Aid to G.W.V.A.	10,000 00	8868

EXTENSION OF TIME TO PASS MUNICIPAL BY-LAWS.

(Section 280 (5) of "The Consolidated Municipal Act, 1922.")

Dryden, Town of, By-law 153—Assistance to Red Cross Society for Hospital	$5,000	8143
Tilbury West, Township of, By-law 367—Road Improvements	40,000	8167
Fort Erie, Village of, By-law 525—Sewage Disposal Plant	50,000	8181
North Bay, Town of, By-law 658—Sewers, etc	20,000	8184
Sioux Lookout, Town of, By-law 90—Hospital purposes	5,000	8443
Cornwall, Town of, By-law 25 (1922)—High School purposes	100,000	8474
Fort Erie, Village of, By-law 525—Sewer	35,000	8489
Haileybury, Town of, By-law 587—Fire Hall and Equipment	15,000	8547
Haileybury, Town of, By-law 588—Pumping Station and Equipment	20,000	8548
Thornbury, Town of, By-law 9 (1923)—Waterworks System	18,000	8575
Teck, Township of, By-law 119—Waterworks System	60,000	8591
Renfrew, Town of, By-law 1098—Fire Hydrants	2,500	8680
Renfrew, Town of, By-law 1099—Floating Indebtedness	10,000	8681
Dundas, Town of, By-law 951—Bonus Loan	15,000	8820
Waterloo, County of, By-law 819—Franchise to City of Kitchener *re* operation of railway in Village of Bridgeport		8831
Percy, Township of, By-law, 787—Electric Distribution Plant in Police Village of Warkworth	14,000	8863
Percy, Township of, By-law 788—To empower Trustees of Police Village of Warkworth to enter into contract with Hydro-Electric Power Commission of Ontario		8864

THE (MUNICIPAL) FRANCHISE ACT.

(Chap. 197, R.S.O.)

	Procedure File.
Bancroft, Village of—Approval By-law 249, as amended by By-law 254—use of certain highways for power transmission line to Donald Lochiel Cameron	8311
Bancroft, Village of—Approval By law 250, exclusive right to D. L. Cameron to supply light, heat and power	8312
Faraday, Township of—Approval By-law 143—use of certain highways for power transmission line to D. L. Cameron	8313
Herschel, Township of—Approval By-law 549—use of certain highways for power transmission line to D. L. Cameron	8314
Dungannon, Township of—Approval By-law 42—use of certain highways for power transmission line to Donald Lochiel Cameron	8315

FUEL—BY-LAWS PROVIDING FOR BUYING, ETC.

(Section 399 (39a) of "The Consolidated Municipal Act, 1922.")

	Liability not to Exceed.	Procedure File
Belleville, City of	$25,000 00	8125
Guelph, City of—By-law 1688	10,000 00	8676

HIGHWAYS—NARROW.

(Section 479 of "The Consolidated Municipal Act, 1922.")

Fort William, City of—Approval By-law 2217—opening of 10 foot Lane north side Lot 359, Wiley Addition	8135
Gosfield North, Township of—Approval By-law 529, narrow highway, Concession 6, at width of 49½ feet	8525

	Procedure File.
Clinton, Township of—Approval By-law 367, Lots 15 and 16, 1st Concession, narrow highway, at width of 40 feet	8574
Hamilton, City of—Approval By-law 2890—Extension Crosthwaite Avenue, at width of 50 feet (P. 460)	8847
Hamilton, City of—Approval By-law 2891—Extension Garside Avenue, at width of 50 feet (P. 460)	8848
Hamilton, City of—Approval of By-law 2892—Extension of Kent Street, at width of 64 feet (P. 460)	8849
Hamilton, City of—Approval of By-law 2889—Extension of Cameron Avenue, at width of 60 feet (P. 460)	8874

INCORPORATIONS.

(Section 19 of "The Consolidated Municipal Act, 1922.")

Nestorville, Town of—Incorporation part Township Thessalon into	8397

INTEREST DECREASE BY-LAWS.

(Section 291 of "The Consolidated Municipal Act, 1922.")

Municipality.	Debenture By-law.	Interest Decrease By-law.	Purpose.	Rate.	Amount.	Procedure File.
St. Catharines, City of.	3366	3449	Collegiate Inst.	6 to 5½%	$480,000	8097
Oshawa, Town of.	1548	1636	Bridge	6 to 5½%	20,000	8178
Oakville, Town of.	645	680	Skating and Curling Rink.	6 to 5½%	12,000	8179
Oakville, Town of.	650	681	Floating debt, etc.	6 to 5½%	25,000	8180
Brantford, City of.	1599	1788	Hospital, etc.	5½ to 5%	185,000	8227
Oshawa, Town of.	1548	1638	Bridge Purposes.	6 to 5½%	20,000	8230
London, City of.	5763	6965	Purposes of London Ry. Commission.	6 to 5%	131,000	8293
London, City of.	5761	6966	Purposes of Public Utilities Commission.	6 to 5%	22,500	8294
London, City of.	5759	6967	Purposes of Public Utilities Commission.	6 to 5%	25,000	8295
Peterborough, City of.	1906	2466	Electric Sub-Station, etc.	6 to 5½%	50,000	8393
Scarborough, Twp. of.	1046	1210	Cemetery	6½ to 5½%	25,000	8460
Meaford, Town of.	5 (1923)	30 (1923)	Hydro-Electric Power Distribution Plant	6 to 5½%	65,000	8683
St. Catharines, City of.	3326	3454	Cemetery Purposes	6 to 5½%	30,000	8695
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Passengers.		Employees.		Travellers on Highway.		Travellers at Crossing.		Trespassers.		Total.	
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
4	425	3	21	11	146	.....	.....	.....	.....	18	592

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Section 19 of "The Consolidated Municipal Act, 1922."
(See also secs. 31, 52 (4), 62, 66 and 93).

INTERSWITCHING, ETC., BETWEEN DOMINION AND PROVINCIAL RAILWAYS.
Section 253 (3), chap. 68, Dominion Statutes, 1919.
Section 131 of "The Ontario Railway Act."

LANDS AND FORESTS DEPARTMENT, EXPROPRIATION, ETC., BY.
See sec. 8, chap. 13, Ontario Statutes, 1918.

LOCAL IMPROVEMENTS.
Deviating highway, sec. 3, chap. 64, Ontario Statutes, 1921.
Part performance only of proposed work, sec. 2, chap. 42, Ontario Statutes, 1923.
Petitions against:
Sections 7 and 9, chap. 193, R.S.O.
Amended 1914, chap. 21, sec. 42.
Amended 1915, chap. 35, sec. 4.
Amended 1921, chap. 64, sec. 1.

MORTGAGES OF RAILWAYS TO BE DEPOSITED WITH BOARD.
Subsection 4 of sec. 48 of "The Ontario Railway Act."

MUNICIPAL ELECTRIC RAILWAYS.
Sections 22, 24, 25, chap. 69, Ontario Statutes, 1922.

NATURAL GAS.
See chap. 12, Ontario Statutes, 1918.
" sec. 10, chap. 13, Ontario Statutes, 1919.
" sec. 20, chap. 17, Ontario Statutes, 1921.
" chap. 23, Ontario Statutes, 1922.

NORTHERN FIRE RELIEF.
Secs. 3 and 4, chap. 7, Ontario Statutes, 1923

Ontario Railway Act, The.
Chapter 185 of The Revised Statutes of Ontario, 1914.
Amended 1916, chap. 31, sec. 10.
Amended 1917, chap. 39.
Amended 1918, chap. 20, sec. 25.
Amended 1918, chap. 30.
Amended 1919, chap. 44.
Amended 1920, chap. 56.
Amended 1922, chap. 66 and 67.

Ontario Railway and Municipal Board Act, The
Chapter 186 of The Revised Statutes of Ontario, 1914.
Amended 1915, chap. 31.
Amended 1916, chap. 24, secs. 25 and 26.
See secs. 10, 12 and 13, chap. 14, Ontario Statutes, 1917.
Amended 1919, chap. 25, secs. 25, 44.
Amended 1922, chap. 68.

Parks, Setting Aside Part of, for Sports, Etc.
Section 13 (6) of "The Public Parks Act," (chap. 203, R.S.O., 1914.)
Section 398 (32) of "The Consolidated Municipal Act, 1922."

Plans of City and Suburban Lands.
Chapter 38, Ontario Statutes, 1918.
Amended 1919, chap. 53.
Amended 1920, chap. 60 (Re Essex Border Utilities Commission. See sec. 28, chap. 99, Ontario Statutes, 1921, and secs. 4 and 5, chap. 109, Ontario Statutes, 1922.)
Amended 1921, chap. 65, sec. 1.
(Re Municipal responsibility as to Highways, see sec. 10, chap. 41, Ontario Statutes, 1923.)

Police Villages.
Formation of—sec. 502 (3) of "The Consolidated Municipal Act, 1922."
In Provisional Judicial Districts, sec. 504*a* of "The Consolidated Municipal Act, 1922."

Public Health Act.
See sec. 10, chap. 41, Ontario Statutes, 1918, *re* Sewage Disposal Plants.

Public Utilities Act, The
Chapter 204, R.S.O., 1914.
Amended 1914, chap. 35.
Amended 1917, chap. 14, sec. 13.
Amended 1917, chap. 47.
Amended 1920, chap. 71, chap. 73.
Re Suburban Development.
See chap. 66, Ontario Statutes, 1921.
See chap. 77, Ontario Statutes, 1922.

Public Works of Ontario, An Act Respecting.
Chapter 35, R.S.O., 1914, secs. 29, *et seq.*, and sec. 46.

Separation of Farm Lands from Town or Village.
Section 21*a* of "The Consolidated Municipal Act, 1922."

Suburban Areas, Development of
Section 7, chap. 66, Ontario Statutes, 1921.
Chapter 77, Ontario Statutes, 1922.

Taxation of Mines and Natural Gas, Act Respecting.
Chapter 26, R.S.O., 1914, sec. 12 (3), *et seq.*

Telephone Systems.
Chapter 31, Ontario Statutes, 1918.
Amended 1919, chap. 43.
Amended 1921, chap. 62, 63.
Amended 1922, chap. 70.
(See chap. 82, Ontario Statutes, 1922.)
Amended 1923, chap. 62.

Temiskaming and Northern Ontario Railway Act.
Act respecting; sec. 17, chap. 38, R.S.O., 1914.

Township, Separation of Junior, from Union.
Section 30 of "The Consolidated Municipal Act, 1922."

(Note.—The above list is prepared to facilitate reference to legislation, and does not purport to be exhaustive. It refers to Public General Acts only, and does not include Special or Private Acts, a great many of which refer matters of local importance to the Board for adjudication, etc.)

TARIFF OF FEES.

Tariff of Fees Payable in Cash under Section 62 of "The Ontario Railway and Municipal Board Act."

For copy of any Document, 10 cents for each 100 words and 50 cents for each Certificate.
For copy of any map or plan, applicants are to pay draughtsmen's and engineers' fees for same and 50 cents for each Certificate.

Law Stamps (Section 63).

In contentious matters requiring a Hearing there shall be paid in Law Stamps the sum of $15.00 for each day or fraction thereof over one-half day, and the sum of $10.00 for each half day or less occupied by or in connection with the Hearing, and $1.00 on each original subpoena.

In Cases in Which There is No Opposing Party.

On order, under Section 295 of "The Consolidated Municipal Act, 1922," validating a By-law and Debentures, the following sums shall be paid in Law Stamps:

	Law Stamps
Where the issue of Debentures amounts to $10,000 or less	$15 00
Over $10,000 and up to $15,000	20 00
" $15,000 " $20,000	25 00
" $20,000 " $25,000	30 00
" $25,000 " $30,000	35 00
" $30,000 " $40,000	40 00
" $40,000 " $50,000	45 00
" $50,000 " $60,000	50 00
" $60,000 " $70,000	55 00
" $70,000 " $80,000	60 00
" $80,000 " $90,000	65 00
" $90,000 " $100,000	70 00
" $100,000 " $110,000	75 00
" $110,000 " $120,000	80 00
" $120,000 " $130,000	85 00
" $130,000 " $140,000	90 00
" $140,000 " $150,000	95 00
" $150,000 " $160,000	100 00
" $160,000 " $170,000	105 00
" $170,000 " $180,000	110 00
" $180,000 " $190,000	115 00
" $190,000 " $200,000	120 00
" $200,000 such sum as the Board may order or direct.	

Law Stamps as above set forth shall be payable on each group of 4 By-laws (grouped by serial numbers) consolidated under "The Local Improvement Act."

The following sums shall be paid in Law Stamps on the following Orders:

On Order for approval of By-law for Work ordered by Dominion or Ontario Railway Board. Mun. Act, Sec. 289 (2) (*f*)	$10 00
On Order for approval of By-law for extension of Waterworks or Electric Light or Gas-works, etc. Mun. Act, Sec. 400 (3)	10 00
On Order for approval of Sinking Fund Investment By-law. Mun. Act, Sec. 303	5 00
On Order for approval of Extension of Debenture Issue Period. Mun. Act, Sec. 288 (9) and (10)	5 00
On Order for approval of By-law increasing the rate of interest on Debentures. Mun. Act, Sec. 291	5 00
On Order for approval of Bridge Construction By-law. Mun. Act, Sec. 289 (2) (*e*)	5 00
On Order extending the time to pass a By-law. 4 Geo. V, Chap. 33, Sec. 7	5 00
On Order approving Municipal Fuel By-law. 7 Geo. V, Chap. 42, Sec. 12 (2)	5 00
On Order approving Railway Company's Public By-laws and Rules	2 00
On Order approving Railway Company's Tolls and Tariffs	2 00
On Order approving Railway Fenders. Sec. 253 of "The Ontario Railway Act"	5 00
On Order approving Railway Company's Examiner of Motormen	1 00
On approval of a Plan under "The Planning and Development Act." (8 Geo. V, Chap. 38)	5 00
On approval of a Deed, etc., under "The Planning and Development Act"	2 00
On approval of a Plan under "The Ontario Railway Act"	5 00
On Orders not included in the above list, such sums as the Board may order or direct.	

TARIFF OF FEES PAYABLE IN LAW STAMPS UNDER "THE ONTARIO TELEPHONE ACT, 1918."

ON ORDER.

Approving Connecting Agreement with The Bell Telephone Company of Canada, Limited; under Section 82	$5 00
Approving Connecting Agreement between telephone systems within the jurisdiction of Ontario; under Section 82	2 00
Approving Municipal By-law granting the use of highways; under Section 67	1 00
Approving Municipal By-law providing for the establishment or extension of telephone systems; under Section 13	5 00
Granting the use of highways in unorganized townships; under Section 71	2 00
Authorizing the extension of telephone system established pursuant to Section 13, into unorganized townships; under Section 12	5 00
Extending the period within which debenture By-law to cover the cost of establishing telephone systems pursuant to Section 13, may be passed under Section 19	5 00
Authorizing the passing of By-law extending the period for repayment of debentures to cover the cost of telephone system established pursuant to Section 13, beyond 10 years; under Section 20	10 00
Authorizing the passing of By-law providing for the issue of new debentures to provide for the payment of a portion of the principal of the original debentures falling due in any year; under Section 23	5 00
Authorizing the removal of signatures from a petition praying for the establishment of a telephone system pursuant to Section 13; under Section 7	2 00
Authorizing a company to issue additional stock or bonds; under Section 94	5 00
Authorizing a company to expend a portion of its Depreciation Reserve in new construction, etc.; under Section 93	5 00
Approving regulations to prevent the misuse of system by subscribers; under Section 95	2 00

On any Order not included in the above list such sums as the Board may order or direct.

The above fees to apply only in cases not requiring a Hearing.

In contentious matters requiring a Hearing: $15 for each day or fraction thereof over one-half day, and $10 for each half-day or less occupied in connection with the Hearing.

Where enquiry is made by the Board's Expert, $10 for each day or fraction thereof over one-half day, and $5 for each half-day or less occupied in connection with such enquiry.

STATEMENT IN DETAIL OF TRAVELLING EXPENSES AND DISBURSEMENTS.

1923.		
January.	D. M. McIntyre, K.C., Chairman	$30 30
	A. B. Ingram, Vice-Chairman	34 50
	J. A. Ellis, Commissioner	51 00
	F. Dagger, Supervisor Telephone Systems	114 65
	W. C. Coo, Court Reporter	42 85
	E. Crosland, Street Railway Inspector	16 05
	J. A. McDonald, Inspector Telephone Systems	15 75
	H. W. Middlemist, C.E., Board's Consulting Engineer	9 00
	Expenses Mr. McIntyre, Mr. Ingram and Mr. Dagger, on circuit trip Toronto to Charlton, and return, on private T. & N. O. Ry. car	26 19
February.	D. M. McIntyre, K.C., Chairman	38 50
	A. B. Ingram, Vice-Chairman	25 65
	J. A. Ellis, Commissioner	50 21
	W. C. Coo, Court Reporter	36 00
	F. Dagger, Supervisor Telephone Systems	25 40
	E. Crosland, Street Railway Inspector	8 35
March.	D. M. McIntyre, K.C., Chairman	2 80
	A. B. Ingram, Vice-Chairman	102 38
	J. A. Ellis, Commissioner	25 97
	F. Dagger, Supervisor Telephone Systems	100 80
	W. C. Coo, Court Reporter	35 15
	E. Crosland, Street Railway Inspector	14 75
	J. A. McDonald, Inspector Telephone Systems	6 75
	H. W. Middlemist, C.E., Board's Consulting Engineer	4 90
April.	D. M. McIntyre, K.C., Chairman	27 90
	A. B. Ingram, Vice-Chairman	35 20
	J. A. Ellis, Commissioner	18 00
	F. Dagger, Supervisor Telephone Systems	70 75
	W. C. Coo, Court Reporter	26 95
	E. Crosland, Street Railway Inspector	19 30
	J. A. McDonald, Inspector Telephone Systems	53 20

1923		
May.	D. M. McIntyre, K.C., Chairman	$67 35
	A. B. Ingram, Vice-Chairman	70 55
	J. A. Ellis, Commissioner	18 00
	F. Dagger, Supervisor Telephone Systems	99 90
	E. Crosland, Street Railway Inspector	26 30
	J. A. McDonald, Inspector Telephone Systems	17 70
	H. W. Middlemist, C.E., Board's Consulting Engineer	9 90
June.	D. M. McIntyre, K.C., Chairman	24 05
	A. B. Ingram, Vice-Chairman	29 40
	J. A. Ellis, Commissioner	46 85
	F. Dagger, Supervisor Telephone Systems	100 90
	W. C. Coo, Court Reporter	48 80
	E. Crosland, Street Railway Inspector	12 05
	J. A. McDonald, Inspector Telephone Systems	69 70
	H. W. Middlemist, C.E., Board's Consulting Engineer	11 90
July.	D. M. McIntyre, K.C., Chairman	6 10
	A. B. Ingram, Vice-Chairman	90 46
	J. A. Ellis, Commissioner	23 70
	F. Dagger, Supervisor Telephone Systems	101 00
	W. C. Coo, Court Reporter	9 60
	E. Crosland, Street Railway Inspector	87 31
	H. W. Middlemist, C.E., Board's Consulting Engineer	25 65
August.	F. Dagger, Supervisor Telephone Systems	169 45
	E. Crosland, Street Railway Inspector	15 00
	J. A. McDonald, Inspector Telephone Systems	11 10
September.	A. B. Ingram, Vice-Chairman	54 35
	J. A. Ellis, Commissioner	109 41
	W. C. Coo, Court Reporter	43 90
	F. Dagger, Supervisor Telephone Systems	43 45
	E. Crosland, Street Railway Inspector	12 60
	J. A. McDonald, Inspector Telephone Systems	50 25
October.	D. M. McIntyre, K.C., Chairman	10 70
	A. B. Ingram, Vice-Chairman	178 25
	J. A. Ellis, Commissioner	66 05
	F. Dagger, Supervisor Telephone Systems	183 28
	W. C. Coo, Court Reporter	12 25
	E. Crosland, Street Railway Inspector	15 00
	J. A. McDonald, Inspector Telephone Systems	83 00
November.	A. B. Ingram, Vice-Chairman	72 80
	J. A. Ellis, Commissioner	118 35
	H. C. Small, Secretary	36 05
	F. Dagger, Supervisor Telephone Systems	12 85
	W. C. Coo, Court Reporter	88 65
	E. Crosland, Street Railway Inspector	53 25
	J. A. McDonald, Inspector Telephone Systems	15 05
December.	A. B. Ingram, Vice-Chairman	58 20
	J. A. Ellis, Commissioner	94 60
	F. Dagger, Supervisor Telephone Systems	73 60
	W. C. Coo, Court Reporter	62 65
	E. Crosland, Street Railway Inspector	18 35
		$3,828 81

THE FOLLOWING GIVES A BRIEF SUMMARY OF THE EXTENSIONS AND IMPROVEMENTS MADE TO THE RAILWAYS UNDER PROVINCIAL JURISDICTION DURING THE YEAR 1923.

Buffalo and Fort Erie Ferry and Railway Company.

This company report that during the year December 31st, 1922, to December 31st, 1923, they did not make any expenditure on track improvements, overhead structure, machinery, etc., except for maintenance.

Cornwall Street Railway, Light and Power Company, Limited.

This company report that during the year December 31st, 1922, to December 31st, 1923, they extended their tracks one half mile east, at a cost of $3,500.

They also report that during the same period they made an expenditure on track improvements, overhead structure, rolling stock, buildings, machinery, etc., of $16,000.

Fort William Electric Railway.

During the year ending December 31st, 1923, this company report that they expended $4,573.78 on spur and electrification of steam road (G.T.P. Ry.).

They also report that during the same period they expended $22,299.80 on the bonding, electrifying and making general improvements on road leased from the Mount McKay and Kakabeka Falls Railway.

Guelph Radial Railway Company.

It is reported by The Hydro-Electric Power Commission of Ontario, that during the year ending December 31st, 1923, there were not any extensions made to the tracks of the Guelph Radial Railway Company.

They also report that during the same period there was not any expenditure made on track improvements, overhead structure, rolling stock, buildings, machinery, etc.

The Hamilton Street Railway Company.

During the year ending December 31st, 1923, this company report an extension to track of 4,425 feet, at a cost of $26,634.02.

They also report that during the same period they made an expenditure on track improvements, overhead structure, rolling stock, buildings and machinery of $22,485.87.

The Hamilton and Dundas Street Railway Company.

It is reported by this company that during the year, December 31st, 1922, to December 31st, 1923, they made track extension at a cost of $120.20.

During the same period they report that they did not make any expenditure on track improvements, overhead structure, buildings, machinery, etc.

The Hamilton, Grimsby and Beamsville Railway Company, Ltd.

This company report that during the year ending December 31st, 1923, they did not make any extensions to track, nor any expenditure on track improvements, rolling stock, buildings, machinery, etc.

The Hamilton and Barton Incline Railway Company.

This company report that during the year December 31st, 1922, to December 31st, 1923, they did not make any extensions to track.

They also report that they did not make any expenditure on track improvements, rolling stock, buildings, machinery, etc.

The Hamilton Mountain Park Company, Limited (Incline Railway).

This company report that during the year ending December 31st, 1923, they did not make any extensions to track, and did not make any expenditure on track improvements, overhead structure, rolling stock, buildings, machinery, etc., during the same period.

The Huntsville and Lake of Bays Railway Company.

During the year ending December 31st, 1923, this company report that they did not make any extensions to track.

They also report that during the same period they made an expenditure on track improvements, overhead structure, buildings, machinery, etc., of $1,499.27.

Hydro-Electric Radial Railway (Essex Division).

(Sandwich, Windsor & Amherstburg Railway.)

It is reported by The Hydro-Electric Power Commission of Ontario that during the year ending December 31st, 1923, they made an extension to the track of this railway of 3,708 miles

They also report that during the same period they made an expenditure on track improvements, rolling stock, buildings, machinery, etc., of $191,619.57.

The International Railway Company (Niagara Falls Park and River Division).

During the year ending December 31st, 1923, this company report that they did not make any extensions to track, nor any expenditure on track improvements, overhead structure, rolling stock, buildings, machinery, etc.

The International Transit Company.

This company report that during the year, December 31st, 1922, to December 31st, 1923, they did not make any extension to track.

They also report that during the same period they made an expenditure of $23,937.70 on track improvements, rolling stock, buildings, machinery, overhead structure, etc.

Kingston, Portsmouth and Cataraqui Electric Railway Company.

During the year ending December 31st, 1923, this company report that they did not make any extension to tracks.

They also report that during the same period they made an expenditure on track improvements, rolling stock, buildings, machinery, etc., of $19,850.34.

They also expended on double-tracking King Street	$4,389 76
Less materials sold	1,117 41
	$3,272 35

(Carried forward on Balance Sheet as a deferred asset, to be written down in future periods.)

Kitchener and Waterloo Street Railway.

During the year ending December 31st, 1923, this company report that they made a track extension of 3,409 feet, at a cost of $38,470.81. (Included in this amount is $7,000.00 for track work done in 1922, and provides for network of tracks entering new car barns).

They also report that during the same period they made an expenditure on track improvements, overhead structure, rolling stock, buildings, machinery, etc., of $82,432.98.

Lake Huron and Northern Ontario Railway.

This company report that during the year, December 31st, 1922, to December 31st, 1923' they did not make any extension to track, and did not make any expenditure on track improvements, rolling stock, buildings, machinery, etc.

The London Street Railway Company.

During the year ending December 31st, 1923, this company report that they did not make any extensions to track.

They also report that during the same period they made an expenditure on track improvements, rolling stock, overhead structure, machinery, buildings, etc., of $163,911.70.

Midland, Simcoe Railway Company.

This has been operated as a siding by the Midland Iron and Steel Company, who report that they were closed down and no repairs or work of any kind on siding during the year ending December 31st, 1923.

Mount McKay and Kakabeka Falls Railway Company.

This company report that during the year ending December 31st, 1923, they did not make any extensions to track.

They also report that the line was leased to the City of Fort William for a period of five years from the 1st of August, 1923, and they spent about $30,000.00 in electrifying and improving the roadbed.

Peterborough Radial Railway.

It is reported by The Hydro-Electric Power Commission of Ontario that during the year ending December 31st, 1923, there was no extension made to the tracks of this railway.

It is also reported by this Commission that there was no expenditure made on track improvements, overhead structure, buildings, machinery, etc.

Port Arthur Civic Railway.

This company report that during the year ending December 31st, 1923, they did not make any extensions to track.

They also report that during the same period they made an expenditure on track improvements, rolling stock, machinery, etc., of $1,082.57.

Sarnia Street Railway Company, Limited.

During the year, December 31st, 1922, to December 31st, 1923, this company report that they did not make any extensions to track.

They report, however, that during the same period they made an expenditure on track improvements, overhead structure, buildings, machinery, etc., of $2,199.26.

St. Thomas Municipal Street Railway.

This company report that during the year ending December 31st, 1923, they did not make any extensions to track.

They also report that during the same period they did not make any expenditure on buildings, machinery, rolling stock, track improvements, etc.

Sudbury-Copper Cliff Suburban Electric Railway.

During the year, December 31st, 1922, to December 31st, 1923, this company report that they did not make any extensions to track

It is also reported that during the same period they did not make any expenditure on rolling stock, buildings, machinery, track improvements, etc.

Temiskaming and Northern Ontario Railway.

It is reported that during the year ending December 31st, 1923, this railway had under construction 70 miles of track extension, of which 43 miles was completed during 1923, at a cost of $1,882,419.58.

It is also reported that during the same period they made an expenditure on rolling stock, buildings, machinery, track improvements, overhead structure, etc., of $766,196.58.

The Thurlow Railway Company.

During the year ending December 31st, 1923, it is reported that this railway did not make any extensions to track.

They also report that during the same period they did not make any expenditure on rolling stock, buildings, machinery, track improvements, etc.

The Toronto Transportation Commission.

During the year, December 31st, 1922, to December 31st, 1923, it is reported that the Commission made an extension to track of 9.270 miles, at a cost of $1,022,327.36.

It is also reported that during the same period they made an expenditure on track improvements, overhead structure, rolling stock, buildings, machinery, etc., of $8,191,350.69.

The Toronto and York Radial Railway.

It is reported by The Hydro-Electric Power Commission of Ontario that during the year ending December 31st, 1923, the above railway made an extension to track of 1.165 miles, at a cost of $46,776.50.

It is also reported that during the same period they did not make any expenditure on overhead structures, machinery, buildings, track improvements, etc.

The Waterloo-Wellington Railway Company.

During the year, December 31st, 1922, to December 31st, 1923, it is reported that this railway did not make any extensions to track.

It is also reported that during the same period they did not make any expenditure on rolling stock, buildings, machinery, track improvements, etc.

The greater part of the road was sold to the Kitchener and Waterloo Railway.

ELECTRIC, STEAM AND INCLINE RAILWAYS UNDER PROVINCIAL JURISDICTION, YEAR ENDING 31ST DECEMBER, 1923.

No.	Name of Railway	Length of road first main track	Length of road second main track	Total main track	Length of sidings and turnouts	Total computed as single track	Length under construction	No. Power Houses		Remarks
								Steam	Water	
		miles	miles	miles	miles	miles	miles			
* 1	Buffalo & Fort Erie Ferry & Railway Company	2.84	.....	2 84	.89	3.73	.....	1	.....	.....
2	Cornwall Street Ry., Light & Power Co., Ltd.	5.	1.	6.	.5	6.5	.....	.....	1	On south Canal Bank, subsidiary power purchased from St. Lawrence Power Co.
§ 3	Fort William Municipal Ry.	8.706	13.033	21.739	.730	22.469	.....	.....	1	Power purchased from Kaministiquia Power Co.
† 4	Guelph Radial	8.49	.....	8.49	1.56	10.05	.....	.....	.....	They supply power to the Light, Heat & Power Commission of Guelph.
5	Hamilton Street	17.4	16.3	33.7	.....	33.7	.....	.....	.....	Power purchased from Hamilton Cataract Power, Light & Traction Co., Ltd.
6	Hamilton and Dundas	5.85	.20	6.05	1.60	7.65	.....	.....	.....	Power purchased from Hamilton Cataract Power, Light & Traction Co., Ltd.
7	Hamilton, Grimsby & Beamsville Electric	22.6	.....	22.6	3.6	26.2	.....	.....	.....	Power purchased from Hamilton Cataract Power, Light & Traction Co., Ltd. (two sub-stations).
* 8	Hamilton & Barton (Incline)	.12	.12	.24	.....	.24	.....	1	.....	Power house located at head of Incline
9	Hamilton & Mountain Park Co. Ltd. (Incline)	.14	.14	.28	.....	.28	.....	.....	.....	Power House Electric on Mountain Top, Hamilton; Power purchased from Hydro-Electric.
*10	Huntsville and Lake of Bays.	1.45	.....	1 45	.31	1.76	.....	.....	.....	.....
†11	Hydro-Electric Radial, Essex Division (S.W. & A. Ry.)	36.370	9.198	45.568	5.163	50.731	.....	.....	.....	Power purchased from The Windsor Hydro Commission.
12	International (Niagara Falls Park and River Division).	11.914	11.202	23.116	1.359	24,475	.....	.....	1	.....
13	International Transit	3.80	1.17	4.97	.09	5.06	.....	.....	.....	Power purchased from The Great Lakes Power Co., Ltd.

*Steam railways. †Operated by Hydro-Electric Power Commission of Ontario. ‡Operated by Temiskaming and Northern Ontario Commission.
§Operated under lease by Fort William Municipal Ry. ||Fort William Railway operating Mount McKay & Kakabeka Falls Ry. under lease.

ELECTRIC, STEAM AND INCLINE RAILWAYS UNDER PROVINCIAL JURISDICTION, YEAR ENDING 31ST DECEMBER, 1923—*Cont'd*

No.	Name of Railway	Length of road first main track	Length of road second main track	Total main track	Length of sidings and turnouts	Total computed as single track	Length under construction	No. Power Houses		Remarks
								Steam	Water	
		miles	miles	miles	miles	miles	miles			
14	Kingston, Portsmouth & Cataraqui Electric	6.	2.	8.	.....	8.	.....	.....	.....	Power purch'd from City of Kingston.
15	Kitchener & Waterloo Street.	4.3	1.74	6.04	.84	6.88	.....	.....	.....	Power purchased from Hydro-Electric Power Commission.
*16	Lake Huron & Northern Ont.	16.	.....	16.	1.	17.	.....	.....	.....	.....
17	London Street	27.48	7.64	35.12	.98	36.10	.....	.....	.....	Power purchased from Hydro-Electric Power Commission.
*18	Midland Simcoe	.....	.....	.....	5.	5.	.....	.....	.....	.....
‖19	Mt. McKay& Kakabeka Falls	5.	.....	5.	1.5	6.5	.....	.....	.....	Windmill at Gravel Pit, Neebing Twp.
†20	Peterborough Radial	7.31	.....	7.31	.84	8.15	.....	.....	.....	Power purchased from Hydro-Electric Power Commission.
21	Port Arthur Municipal	12.43	6.10	18.53	1.04	19.57	.....	.....	1	Power House located at Current River, Port Arthur. Power purchased from Hydro-Electric Power Commission.
22	Sarnia Street Ry. Co., Ltd.	8.25	.....	8.25	1.	9.25	.....	.....	.....	One Hydro-Electric Power Station. Power purchased from Hydro-Electric System.
23	St. Thomas Street (Munic'p'l)	.....	.....	6.5	.10	6.60	.....	.....	.....	Power purchased from Hydro-Electric System.
24	Sudbury, Copper Cliff Suburban Electric	7.9	.....	7.9	.....	7.9	.....	.....	.....	Power purchased from Wahnapitae Power Co., Ltd.
‡25	Temisk'g & Northern Ontario	371.5	1.7	373.2	130.53	503.73	27.	.....	.....	Power purchased from Hydro-Electric Commission, and Northern Ontario Light & Power Co., Ltd.
*26	Thurlow Railway	2.671	.....	2.671	2.766	5.437	.....	.....	.....	.....
27	Toronto Transportation Commission	97.922	85.530	183.452	30.259	213.711	8.229	.....	.....	Power purchased from Ontario Hydro-Elec. and Toronto Hydro-Electric Systems.
†28	Toronto & York Radial	80.069	1.315	81.384	13.540	94.924	.....	.....	.....	Power purchased from Ontario Hydro-Electric Power Commission.
29	Waterloo-Wellington	.43	.....	.43	.04	.47	.....	.....	.....	Sold the greater part of the road to the Kitchener & Waterloo Ry.
	Total	771.942	158.388	936.830	205.237	1,142.067	35.229	2	4	

*Steam railways. †Operated by Hydro-Electric Power Commission of Ontario. ‡Operated by Temiskaming and Northern Ontario Commission.
§Operated under lease by Fort William Municipal Ry. ‖ Fort William Railway operating Mount McKay and Kakabeka Falls Ry. under lease.

FORM THAT MAY BE USED IN CONNECTION WITH THE EXAMINATION OF MOTORMEN.

Name of City or Town.

.....192 .

Name of Railway.

This is to certify that, acting under The Ontario Railway Act, 1914, R.S.O., chapter 185, section 263, I have fully examined the.....who is.....years of age and.....feet.....inches high, weighs..... lbs., complexion....., as to his fitness as a motorman, that the said..... .....is of steady habits, and is in physical ability, intelligence and general knowledge of, and experience in, this work qualified to act as motorman on any electric motor car of said Company.

I have been duly appointed an examiner under the said Act, my appointment being dated .....

Name.....
Examiner.

FORM.

COPY OF FORM TO BE USED BY COMPANIES IN REPORTING ACCIDENTS.

Accidents: Regulations Under and in Pursuance of Sections 274 and 279 of "The Ontario Railway Act, 1914." R.S.O., Chapter 185.

Accidents.—Every company upon the happening of an accident shall give to the Ontario Railway and Municipal Board notice thereof in writing by delivering the same at the office of the Board in the City of Toronto or by mailing it, postage prepaid, in a registered letter addressed to the Board.

Such notice shall contain a statement signed by a duly authorized officer of such company, setting forth the information and particulars hereinafter mentioned.

Such statement shall be divided into paragraphs, each of which shall include and refer to one (or one group) only of the numbered particulars hereinafter mentioned, and the paragraph referring to each respective numbered particular shall bear the number corresponding to the number hereinafter given for each such particular.

The numbers of paragraphs and the particulars to which each shall refer as aforesaid, are as follows:—

1. Name or names of company or companies concerned in accident.
2. Numbers of train, engine, car or motor.
3. Date and time of accident.
4. Nature of accident.
5. Exact location.
6. Name in full, address and legal addition of each person injured or killed.
7. Age.
8. Married or single.
9. Passenger, employee or other.
10. If employee, length and nature of service with dates and periods of different occupations (if more than one).
11. If employee, character, experience, skill and fitness with respect to occupation at time of accident.
12. How engaged at time of accident, and how long on duty.
13. Cause of accident, how same occurred, with full particulars and details, and diagram if required.
14. Persons in charge, with full names, addresses and the particulars referred to in paragraphs 10, 11 and 12.
15. Result to person and particulars of injury.
16. Result to property, including amount of damage.
17. Names and addresses of all persons present at, or eye-witnesses of, the accident.
18. What investigation (if any), and result of same.
19. Verdict (if any).

The Board reserves the right to require such further and other details, particulars, maps, plans, profiles, documents, models and information or illustration of any kind as the nature of the accident and a full understanding thereof may suggest or require.

In pursuance of sections 274 and 279 of said Act, the Board declares that all such information so given in pursuance of this regulation shall be privileged.

Signature of Officer.

N.B.—Give name of officer who fills out this report.

REGULATION AS TO HEIGHT OF CAR STEPS.

Under and in pursuance of a certain order of the Board bearing date the 2nd day of June, A.D. 1909, The Ontario Railway and Municipal Board made the following regulations:

The steps on all cars hereafter constructed and used by The Toronto Railway Company and all other street and electric railways under the jurisdiction of this Board shall have steps conforming to the following regulations:

On closed single truck cars the height of the first step above the ground shall not be less than twelve nor more than fifteen inches.

On closed double truck cars the height of the first step above the ground shall not be less than fourteen nor more than sixteen inches.

On open single truck cars the height of the first step above the ground shall be not less than twelve nor more than fifteen inches, and the distance between the first and second steps and the second step and the floor of the car shall measure twelve inches and nine inches respectively.

On open double truck cars, the height of the first step above the ground shall be not less than fourteen nor more than sixteen inches, and the distance between the first and second steps and the second step and the floor of the car shall measure twelve inches and fourteen inches respectively.

REGULATION RE DRINKING WATER ON PASSENGER CARS.

Every Electric Railway Company in Ontario, subject to the jurisdiction of the Board shall provide in each passenger car which runs 20 miles or more, a suitable receptacle for water with a cup or drinking utensil attached upon or near such receptacle, and shall keep such receptacle, while the car is in use, constantly supplied with cool drinking water for the use of passengers and the conductor and motorman in charge of such car.

This regulation shall not apply to street railways in towns or cities.

Dated at Toronto this 24th day of June, 1909.

(Sgd.) James Leitch,
Chairman.
(Sgd.) A. B. Ingram,
Vice-Chairman.
(Sgd.) H. N. Kittson,
Commissioner.

TORONTO, 1923.

Summary by months of all accidents on Toronto Transportation Commission's lines.
January 1st to December 31st, 1923.

Nature of Accident	January	February	March	April	May	June	July	August	September	October	November	December	Total
Collisions with cars	1	2	2	1	2	Nil	1	Nil	Nil	2	2	2	15
Collisions with autos	260	216	268	234	239	212	287	279	324	284	310	388	3,301
Collisions with motorcycles and bicycles	4	2	4	8	5	12	7	9	7	8	4	3	73
Collisions with wagons	34	21	20	19	11	6	20	14	12	11	11	12	191
Boarding cars	11	17	16	18	16	8	10	2	7	6	4	8	123
Alighting from cars	19	7	29	32	24	21	19	13	17	18	26	16	241
Falling within cars	114	81	31	8	10	7	10	15	8	9	21	36	350
Derailment of cars	Nil	Nil	Nil	Nil	Nil	1	Nil	1	Nil	Nil	Nil	Nil	2
Miscellaneous	12	12	17	31	23	33	36	27	38	40	36	26	331
Total, all accidents	455	358	387	351	330	300	390	360	413	378	414	491	4,627
Personal injuries, all degrees:													
To passengers	106	75	56	49	46	28	51	31	40	47	58	57	644
To others	17	11	23	21	14	25	18	18	14	26	20	8	215
Total	123	86	79	70	60	53	69	49	54	73	78	65	859
Fatal accidents:													
To passengers	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	1
To others	1	Nil	Nil	2	Nil	1	1	1	1	Nil	2	Nil	9
Total	1	Nil	Nil	2	Nil	1	1	1	1	1	2	Nil	10

HAMILTON, 1923.

Accidents on Hamilton Street Railway, Hamilton and Dundas Street Railway, and Hamilton Grimsby and Beamsville Electric Railway lines within Hamilton City Limits and under the jurisdiction of this Board.

From January 1st to December 31st, 1923.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Collisions with cars	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Collisions with autos	49	37	36	29	33	34	57	49	51	35	61	50	521
Collisions with motorcycles and bicycles	Nil	Nil	Nil	2	1	Nil	Nil	Nil	Nil	Nil	2	Nil	5
Collisions with wagons	6	6	4	2	1	Nil	Nil	2	2	3	5	1	32
Boarding cars	3	4	1	Nil	1	1	1	3	1	3	Nil	Nil	18
Alighting from cars	1	4	2	2	2	2	7	1	2	1	3	Nil	27
Derailment of cars	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Miscellaneous	Nil	Nil	1	2	2	4	Nil	2	1	2	Nil	1	15
Total, all accidents	59	51	44	37	40	41	65	57	57	44	71	52	618
Personal injuries, all degrees:													
To passengers	5	8	3	3	3	5	8	3	3	5	3	Nil	49
To others	Nil	Nil	2	4	3	4	Nil	1	3	1	1	1	20
Total	5	8	5	7	6	9	8	4	6	6	4	1	69
Fatal accidents:													
To passengers	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
To others	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Total	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

LONDON, 1923.

Accidents on London Street Railway Only.

January 1st to December 31st, 1923.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Collisions with cars	1	2	Nil	Nil	Nil	Nil	1	Nil	Nil	5	1	1	11
Collisions with autos	47	42	26	29	35	20	32	24	47	61	34	52	449
Collisions with motorcycles and bicycles	1	Nil	Nil	Nil	2	Nil	3	Nil	1	2	3	Nil	12
Collisions with wagons	8	9	3	Nil	4	Nil	1	5	2	1	Nil	1	34
Boarding cars	Nil	3	1	1	1	Nil	1	1	1	1	1	1	12
Alighting from cars	8	6	3	11	6	2	5	3	7	9	4	1	65
Derailment of cars	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	1
Miscellaneous	7	10	3	7	12	2	4	3	8	9	6	5	76
Total, all accidents	72	72	36	48	60	24	47	36	66	88	49	62	660
Personal injuries, all degrees:													
To passengers	4	4	3	5	6	1	2	2	4	5	5	2	43
To others	2	6	2	4	7	1	4	2	7	5	1	2	43
Total	6	10	5	9	13	2	6	4	11	10	6	4	86
Fatal accidents:													
To passengers	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
To others	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	1
Total	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	1

INDEX TO RAILWAY LEGISLATION.

List No. 2.

The following index has been made with the object of continuing in chronological order all the legislation passed by both the Dominion and the Provincial Governments since 1867, affecting railways situated wholly or partially within the Province of Ontario.

"List No. 2" was consolidated in our Ninth Annual Report, 1914, pages 272 to 354, inclusive, and is continued on page 212 of the Fourteenth Annual Report (1919); also in Fifteenth Annual Report (1920), page 210; and is continued in our Seventeenth Annual Report (1922), page 226, and in the following list up to and inclusive of 1923.

	Chap.	Year
BUFFALO AND FORT ERIE PUBLIC BRIDGE COMPANY:		
Dominion Statute..... Act to incorporate.	74	1923
CANADIAN NATIONAL RAILWAYS:		
Dominion Statute..... Act respecting.	6	1923
Dominion Statute..... Act respecting.	7	1923
Dominion Statute..... Act to amend.	37	1923
Ontario Statute..... *See* Act respecting the Municipality of Neebing.	75	1923
Ontario Statute..... *See* Act respecting City of Port Arthur.	80	1923
Ontario Statute..... *See* Act respecting City of Toronto.	95	1923
CANADIAN NIAGARA BRIDGE COMPANY:		
Dominion Statute..... Act respecting.	76	1923
CANADIAN NORTHERN RAILWAY:		
Ontario Statute..... *See* Act respecting City of Port Arthur.	80	1923
CANADIAN PACIFIC RAILWAY:		
Ontario Statute..... *See* Act respecting City of Port Arthur.	80	1923
ESSEX TERMINAL RAILWAY COMPANY:		
Dominion Statute..... An Act respecting.	77	1923
FECUNIS LIMITED:		
Ontario Statute..... Act respecting.	108	1923
GUELPH RAILWAY ACT:		
Ontario Statute..... Act to amend.	40	1923
KINGSTON, PORTSMOUTH AND CATARAQUI ELECTRIC RAILWAY COMPANY:		
Ontario Statute..... *See* An Act respecting the Corporations of the City of Kingston and the Village of Portsmouth.	70	1923
LAKE ERIE AND DETROIT RIVER RAILWAY:		
Ontario Statute..... *See* Act respecting the Village of Port Stanley.	83	1923

	Chap.	Year
LONDON AND PORT STANLEY COMPANY:		
Ontario Statute	83	1923
See Act respecting Village of Port Stanley.		
NIPISSING CENTRAL RAILWAY COMPANY:		
Dominion Statute	80	1923
Act respecting.		
OTTAWA, NORTHERN AND WESTERN RAILWAY COMPANY:		
Dominion Statute	81	1923
Act respecting.		
TORONTO SUBURBAN RAILWAY COMPANY:		
Ontario Statute	95	1923
See Act respecting City of Toronto.		

TABLES A, B AND C.

The following tables, A, B and C, have been compiled for the purpose of showing the various subsidies voted from July 1st, 1867, by the Province of Ontario to Railways constructed wholly or partly within the Province.

Table A sets forth the subsidies voted by the Province of Ontario to the various Railways therein mentioned. These subsidies, however, have not all been paid in cash. In some cases the Railways have received the whole amount in cash, others have received the whole amount in certificates of the Province of Ontario, bearing interest at the rate of 3½ per cent. per annum while others have received payment partly in cash and partly in certificates of Ontario with interest at 3½ per cent.

Table B shows what cash the Railways have received, the amounts which the Province has paid in respect of the certificates, and the amount of outstanding certificates. The amounts set forth in the total column in Table B represent the amounts paid to Railway Companies respectively, together with the amount of the unredeemed certificates issued to such Railways. The difference between the gross sum of the subsidies voted and the total amount paid by the Government to Railways and the unpaid liability due by the Government in respect of such subsidies is made up of the interest at the rate of 3½ per cent. for the term of years over which the payment of the Government is distributed.

Table C is a statement showing amounts payable annually for certificates issued by the Treasurer of the Province for "Aid to Railways" and Annuities.

NOTE.—These following statements are taken from the Public Accounts for the year ending 31st October, 1923.

Table A
Aid to Railways from Confederation to October 31st, 1923

Name of Railway	Miles	Rate	Subsidy Voted
		$ c	$ c.
Algoma Eastern	53.	5,000 00	265,000 00
Algoma Central & Hudson Bay	99.81	2,000 00	199,620 00
Bay of Quinte	28.45	3,000 00	85,350 00
Belleville and North Hastings	22.	3,000 00	66,000 00
Brantford, Norfolk & Port Burwell	33.27	2,000 00	66,540 00
Bruce Mines & Algoma	17.	3,000 00	51,000 00
Canada Central	20.029	2,650 00	53,000 00
" "	20.	2,650 00	53,000 00
" "	7.531	2,650 00	19,957 15
Canada Southern	62.901	2,000 00	125,802 00
Central Counties	31.	2,000 00	62,000 00
" "	7.	1,200 00	8,400 00
Central Ontario	50.500	3,000 00	151,500 00
Cobourg, Peterboro' & Marmora	9.37	2,000 00	18,740 00
Credit Valley	153.061	3,000 00	459,183 00
Canada Atlantic	65.72	4,000 00	262,880 00
Erie & Huron	40.556	2,000 00	81,112 00
Grand Trunk, Georgian Bay & Lake Erie	79.3	2,000 00	158,600 00
Grand Junction	45.86	3,000 00	137,580 00
" "	20.	2,000 00	40,000 00
G.T.R. Assignee of Magnetawan River Railway	1.86	cash	10,000 00
Grand Trunk Pacific	188.16	2,000 00	376,320 00
Hamilton and North Western	95.464	2,500 00	238,660 00
" " "	48.052	3,000 00	144,156 00
Hamilton & Lake Erie	33.48	2,000 00	66,960 00
Huntsville & Lake of Bays	1.50	cash	10,000 00
Irondale, Bancroft & Ottawa	44.77	3,000 00	134,310 00
James Bay	3.70	4,000 00	14,800 00
Kingston & Pembroke	20.	2,000 00	40,000 00
" "	15.	2,650 00	39,750 00
" "	11.58	3,250 00	37,635 00
" "	13.74	7,000 00	96,180 00
" "	28.42	8,000 00	237,360 00
Lake Simcoe Junction	26.50	2,000 00	53,000 00
Lindsay, Bobcaygeon & Pontypool	17.53	3,000 00	52,590 00
London, Huron & Bruce	69.146	2,000 00	138,292 00
Montreal & Ottawa	50.	2,000 00	100,000 00
Midland	20.40	2,000 00	40,800 00
"	19.60	2,250 00	44,100 00
"	14.53	4,000 00	58,120 00
North Simcoe	33.343	2,500 00	83,357 50
Northern Extension	42.72	2,000 00	85,440 00
" "	27.68	4,000 00	110,720 00
Ontario & Rainy River	268 20	4,000 00	1,072,800 00
Ontario, Belmont & Northern	9.57	2,000 00	19,140 00
Ottawa, Arnprior & Parry Sound	149.43	3,000 00	448,290 00
Pembroke Southern	18.50	3,000 00	55,500 00
Prince Arthur's Landing	5.995	2,000 00	11,990 00
Prince Edward County	32.	2,500 00	80,000 00
Port Dover & Lake Huron	63.	2,000 00	126,000 00
Port Arthur, Duluth & Western	80.	3,000 00	240,000 00
Parry Sound Colonization	47.75	3,000 00	143,250 00
Stratford & Lake Huron	27.5	2,000 00	55,000 00
Toronto, Grey & Bruce	73.52	3,000 00	220,560 00
" "	77.62	2,000 00	155,240 00
Toronto & Nipissing	33.439	2,000 00	66,878 00
" "	12.778	3,000 00	38,334 00
Tillsonburg, Lake Erie & Pacific	19.108	2,000 00	38,216 00
Thessalon & Northern	1.929	cash	5,000 00
Victoria	33.442	4,000 00	133,768 00
"	22.310	8,000 00	178,480 00
Wellington, Grey & Bruce	120.638	2,000 00	241,276 00
Whitby, Port Perry & Lindsay	45.745	2,000 00	91,490 00
Ottawa & New York (International Bridge)	.....	certificates	35,000 00
Dominion Bridge Co. (Interprovincial Bridge)	.....	certificates	50,000 00
Totals	2,836 007	.....	8,084,026 65

Table B

Aid to Railways up to 31st October, 1923, from Confederation

Name of Railway	Miles	Cash Payments	Certificates paid	Certificates outstanding	Total
		$ c.	$ c.	$ c.	$
Algoma Eastern	53.000	265,000 00	.....	.....	265,000 00
Algoma Central & Hudson's Bay	99.810	199,620 00	.....	.....	199,620 00
Belleville and North Hastings	22.000	.....	114,206 40	.....	114,206 40
Brantford, Norfolk and Port Burwell	33.270	.....	129,353 60	.....	129,353 60
Bruce Mines and Algoma	17.000	1,920 00	48,3 6 57	43,169 03	93,485 60
Bay of Quinte	28.450	.....	77,624 04	81,604 76	159,228 80
Canada Central	47.560	125,957 15	.....	.....	125,957 15
Canada Southern	62.901	.....	244,559 20	.....	244,559 20
Central Counties	38.000	68,747 26	.....	.....	68,747 26
Central Ontario	50.500	73,500 00	75,907 50	69,610 90	219,018 40
Cobourg, Peterboro' and Marmora	9.370	18,740 00	.....	.....	18,740 00
Credit Valley	153 061	18,702 00	788,648 85	.....	807,350 85
Canada Atlantic	65.720	.....	454,887 60	.....	454,887 60
Erie and Huron	40.556	1,634 47	122,200 40	.....	123,834 87
Grand Trunk, Georgian Bay and Lake Erie	79.300	1,580 00	229,866 00	.....	231,446 00
Grand Junction	65.860	40,000 00	238,067 60	.....	278,067 60
Grand Trunk Railway as Assignee of Magnetawan Railway	1.860	10,000 00	.....	.....	10,000 00
Grand Trunk Pacific	188.160	.....	257,112 24	444,978 16	702,090 40
Hamilton and North Western	143.516	.....	727,697 20	.....	727,697 20
Hamilton and Lake Erie	33.480	66,960 00	.....	.....	66,960 00
Hunstville and Lake of Bays	1.500	10,000 00	.....	.....	10,000 00
Irondale, Bancroft and Ottawa	44.770	.....	169,311 36	81,258 24	250,569 60
James Bay	3.700	.....	14,496 30	13,115 70	27,612 00
Kingston and Pembroke	88.740	213,522 50	393,423 20	.....	606,945 70
Lindsay, Bobcaygeon and Pontypool	17.530	.....	46,604 34	51,510 06	98,114 40
Lake Simcoe Junction	26.500	53,000 00	.....	.....	53,000 00
London, Huron and Bruce	69.146	.....	268,839 60	.....	268,839 60

NOTE.—Present Value of Railway Certificates outstanding, October 31st, 1923, $1,710,784.89

Table B—*Continued*

Aid to Railways up to 31st October, 1923, from Confederation

Name of Railway	Miles	Cash payments	Certificates paid	Certificates outstanding	Total
		$ c.	$ c.	$ c.	$ c.
Montreal and Ottawa	50.000	.....	119,398 40	67,161 60	186,560 00
Midland	54.530	66,227 50	149,284 40	.....	215,511 90
North Simcoe	33.343	.....	144,241 60	.....	144,241 60
Northern Extension	70.400	196,188 00	.....	.....	196,188 00
Ontario and Rainy River (Canadian Northern)	268.200	.....	1,113,539 50	887,876 50	2,001,416 00
Ontario, Belmont and Northern	9.570	.....	24,114 78	11,610 82	35,725 60
Ottawa, Arnprior and Parry Sound	149.430	.....	572,323 78	245,368 22	817,692 00
Pembroke Southern	18.500	.....	64,713 00	38,827 80	103,540 80
Prince Arthur's Landing	5.995	.....	20,747 20	.....	20,747 20
Prince Edward County	32.000	.....	155,520 00	.....	155,520 00
Port Dover and Lake Huron	63.000	126,000 00	.....	.....	126,000 00
Port Arthur, Duluth and Western (Canadian Northern)	80.000	15,571 54	361,693 20	86,050 80	463,315 54
Parry Sound Colonization	47.750	.....	199,123 65	68,123 55	267,247 20
Stratford and Lake Huron	27.500	55,000 00	.....	.....	55,000 00
Toronto, Grey and Bruce	151.140	285,182 00	176,182 40	.....	461,364 40
Toronto and Nipissing	46.217	105,212 00	.....	.....	105,212 00
Tillsonburg, Lake Erie and Pacific	19.108	.....	48,102 67	23,192 53	71,295 20
Thessalon and Northern	1.929	5,000 00	.....	.....	5,000 00
Victoria	55.752	33,442 00	503,875 20	.....	537,317 20
Wellington, Grey and Bruce	120.638	241,276 00	.....	.....	241,276 00
Whitby, Port Perry and Lindsay	45.745	40,000 00	89,790 40	.....	129,790 40
Ottawa and New York (International Bridge)	.....	.....	37,546 12	27,751 48	65,297 60
Dominion Bridge Co. (Interprovincial Bridge)	.....	.....	52,472 25	40,811 75	93,284 00
Totals	2,836.007	2,337,982 42	8,233,870 55	2,282,021 90	12,853,874 87

NOTE.—Present Value of Railway Certificates outstanding, October 31st, 1923, $1,710,784.89

Table C

RAILWAY AID AND ANNUITIES

Statement showing amounts payable annually for certificates issued by the Treasurer of the Province for Aid to Railways and Annuities

Year	Railway Aid Certificates	Annuities	Year	Railway Aid Certificates	Annuities
	$ c.	$ c.		$ c.	$ c.
1923.....	.....	51,450 00	Forward.....	2,054,065 86	695,800 00
1924.....	139,112 54	96,200 00	1941.....	67,943 75	.....
1925.....	139,112 54	82,500 00	1942.....	31,818 40	.....
1926.....	139,112 54	69,350 00	1943.....	24,920 51	.....
1927.....	139,112 54	56,950 00	1944.....	22,695 08	.....
1928.....	139,112 54	50,700 00	1945.....	18,251 86	.....
1929.....	139,112 54	50,700 00	1946.....	18,251 86	.....
1930.....	138,412 94	50,700 00	1947.....	18,251 86	.....
1931.....	134,914 94	43,700 00	1948.....	18,251 86	.....
1932.....	127,918 94	32,700 00	1949.....	6,871 26	.....
1933.....	125,120 54	28,700 00	1950.....	699 60	.....
1934.....	123,021 74	28,700 00			
1935.....	111,128 54	24,700 00			
1936.....	105,090 01	16,700 00			
1937.....	94,459 80	9,200 00			
1938.....	90,961 80	2,850 00			
1939.....	86,122 35	.....			
1940.....	82,239 02	.....			
Forward....	2,054,065 86	695,800 00	TOTALS.....	2,282,021 90	695,800 00

NOTE.—Present value of Railway certificates, October 31st, 1923 (interest 1¾ per cent. half yearly)..... 1,710,784 89

Present value of Annuities, October 31st, 1923 (interest 1¾ per cent. half yearly)..... 589,459 31

ONTARIO SAFETY LEAGUE RECORDS.

Province of Ontario

Accidents, January 1st to December 31st, 1923.

Cause	Fatal	Non-Fatal
Drownings	237	155
Motors, Trucks, Motorcycles	236	2,348
Falls	157	587
Railroad	117	202
Fires	80	155
Burns and Scalds	67	98
Asphyxia	53	89
Horse vehicle	44	193
Gunshot	39	68
Struck by falling or flying objects	30	179
Machinery	29	165
Injured by animals	26	88
Crushed	25	32
Street cars	25	81
Electrocution	23	27
Poisoning	22	21
Explosion	22	83
Elevator	12	28
Bicycles	9	145
Septic poisoning	9	9
Strangulation	8	3
Cave-in	8	15
Smothered	5	1
Struck, or struck by moving or stationary object	4	35
Collapse of building—scaffold	4	6
Fire arms	3	21
Aeroplane	3	2
Injured by farm implements	2	8
Injured in games, exercises, wrestling, boxing, etc	2	95
Exposure	2	2
Coasting	1	32
Shock	1	1
Fracture	1	4
Swallowed foreign object	1	9
Injured at work, no particulars as to nature of accident	1	21
Injured at play	1	8
Injury by cutting and piercing instruments	1	8
Race track	1	11
Overheated, drank swampwater	1	..
Pneumonia—Paralysis result of accidents	1	1
Carbolic acid burns	..	2
Narcotic	..	1
Injured by fish hook	..	3
Hand and foot injuries (minor)	..	25
Barn raising	..	9
Army manoeuvres	..	1
Impaled on hammock hook—wire fence	..	2
Hand car	..	2
Totals	1,313	5,081

ONTARIO SAFETY LEAGUE RECORDS.

TORONTO.

Accidents, January 1st to December 31st, 1923.

Cause	Fatal	Non Fatal
Falls	67	118
Motor, Motor Trucks, Motorcycles	54	547
Asphyxia	37	46
Burns and Scalds	24	23
Street cars	10	42
Drowning	6	22
Electrocution	5	5
Elevator	5	13
Railroad	4	7
Machinery	4	18
Poisoning	4	7
Smothered	3	..
Struck by falling or flying object	2	35
Septic poisoning	2	2
Injury by animals	2	10
Fracture	2	..
Bicycles	2	37
Gunshot	1	3
Crushed	1	8
Strangulation	1	1
Injured by cutting and piercing instruments	1	..
Horse vehicles	1	31
Fires	1	41
Injured in games, exercises, stunts, etc	..	14
Explosion	..	13
Coasting	..	11
Hand and foot injuries (minor)	..	4
Injury by fish hook	..	2
Cave-in	..	2
Injured while at work (no particulars as to nature of accident)	..	2
Race track	..	1
Totals for year 1923	239	1,065

ANNUAL REPORT OF THE

BUFFALO AND FORT ERIE FERRY AND RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31ST, 1923.

GENERAL INFORMATION.

Name of Municipality or Municipalities in which railway operates—Township of Bertie and Village of Fort Erie, Ontario.
Name of Company—Buffalo and Fort Erie Ferry and Railway Company.
Date of Incorporation—1916 by Bill No. 56, Parliament of Ontario.
Dates of Subsequent Legislation—None.
Date of Expiry of Franchise—1916.
Amount paid to Municipality per year per mile of track—None.
Further amounts, if any, paid to Municipality by way of percentage earnings % on $—None.
Total amount paid Municipality during year for franchise—None.
Appraised value of Plant and Tracks for purposes of Taxation.
Total Taxes paid during year to Municipality—None.
Amount of Aid received from Municipality, if any—None.
Cost per horse power for motive power used in operating plant—No records.
Cost of power per car mile—No records.
Average speed of cars—No records.
State if power is purchased or generated by Company—operated by steam,
Give number of power houses—None.

General Exhibit:		
Gross earnings from operation		$18,274 33
Operating expenses		14,194 93
Net earnings from operation		$4,079 40
Miscellaneous income:		
Total miscellaneous income		
Gross income above operating expenses		4,079 40
Charges upon income accrued during the year:		
Interest on funded debt	.....	
Interest and discount on unfunded debts and loans	.....	
Taxes, Municipal	.....	
Taxes, Provincial	.....	
Taxes, Commutation	.....	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income: Depreciation	$2,014 42	$2,014 42
Total charges and deductions from income		2,014 42
Net divisible income		$2,064 98
Dividends declared.....per cent. on $	.....	
.....per cent. on	.....	
Total dividends declared	.....	
Deficit for the year ending December 31st, 1922		
Amount of surplus or deficit, December 31st, 1921		
Credits to profit and loss account during the year	.....	
Total credits	.....	
Debits to profit and loss account during the year	.....	
Total debits	.....	
Net amount credited to profit and loss		
Total surplus or deficit, December 31st, 1923		$2,064 98

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried	$18,274 33
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	.....
" advertising in cars	.....
" interest on deposits	.....
Other earnings from operation	.....
Gross earnings from operation	$18,274 33
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	.....
General office expenses and supplies	.....
Legal expenses	.....
Insurance	.....
Switchings charge, if any	.....
Other general expenses—pay rolls	7,776 22
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	.....
Repair of electric line construction	.....
Repair of buildings	.....
Maintenance of Equipment:	
Repair of cars and road bed	2,894 57
Repair of electric equipment of cars	.....
Repair of miscellaneous equipment	.....
Provender and stabling	.....
Transportation Expenses:	
Coal, net	3,524 14
Wages and compensation of persons employed in conducting transportation	.....
Removal of snow and ice	.....
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses	.....
Total operating expenses	$14,194 93

Property Accounts—Additions and Deductions during the Year.

Additions to Railway:	
Extension of track (length.....feet)	.....
New electric line construction (length.....feet)	.....
Other additions to railway	.....
Total additions to railway	.....
Additions to Equipment:	
Additional cars (.....in number)	.....
Electric equipment of same	.....
Other additional rolling stock	.....
Other additions to equipment	.....
Total additions to equipment	.....
Additions to Land and Buildings:	
Additional land necessary for operation of railway	.....
New electric power stations, including machinery, etc	.....
Additional equipment of power stations	.....
Other new buildings necessary for operation of railway	.....
Total additions to land and buildings	.....

Additions to other Permanent Property:		
Total additions to other permanent property		
Total additions to property accounts		
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)		
Total deductions from property accounts		
Net addition to property accounts for the year		

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks		
Electric line construction, including poles, wiring, feeder lines, etc.		
Interest accrued during construction of railway		
Engineering and other expenses incident to construction		
Other items of railway cost		
Total cost of railway owned		$96,235 79
Cost of equipment:		
Passenger cars and other rolling stock		
Electric equipment of same		
Other items of equipment		
Total cost of equipment owned		
Cost of land and buildings:		
Land necessary for operation of railway		
Electric power stations, including equipment		
Other buildings necessary for operation of railway		
Total cost of land and buildings owned		
Other permanent property:		
Total cost of other permanent property owned		
Total permanent investments		$96,235 79
Cash and current assets:		
Cash	$2,578 60	
Bills and accounts receivable		
Sinking and other special funds		
Other cash and current assets		
Total cash and current assets		2,578 60
Miscellaneous assets:		
Materials and supplies		
Other assets and property		
Total miscellaneous assets		
Profit and loss balance—deficit		1,185 61
Total		$100,000 00
Liabilities:		
Capital stock, common		$100,000 00
Capital stock, preferred		
Total capital stock		
Funded debt		
Real estate mortgages		

Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Depreciation reserve	.....	
		.....
Total current liabilities		.....
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		
Sinking and other special funds:		
.....	.....	
Total sinking and other special funds		
Profit and loss balance—surplus		
Total		$100,000 00

Capital Stock—Real Estate Mortgages.

Capital Stock:		
Capital stock authorized by law, common	$100,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common	.....	$100,000 00
Capital stock issued and outstanding, preferred	.....	
Total capital stock outstanding	.....	
Amount paid in on .....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$100,000 00
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held		

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Totals				

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the yr.
Totals				

Sinking and Other Special Funds.

Amount, Dec. 31, 192...., of.....fund		
of.....fund		
Total, Dec. 31, 192....,		
Additions during the year to.....fund		
to.....fund		
Total, including additions		
Deductions during the year from.....fund		
from.....fund		
Total sinking and other special funds, Dec. 31, 192....,		

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.:

Number of passengers paying revenue carried during the year	
Number carried per mile of main railway track operated	
Number of car miles run	
Average number of persons employed	
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	
Amount of passenger earnings per mile of road	

Freight:

Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	equipped with Electric heaters
Box passenger cars.....																
Open passenger cars.....																

MISCELLANEOUS EQUIPMENT.

	Total number
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock.....	
Other highway vehicles.....	
Horses.....	
Other items of equipment.....	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line.....					
Length of second main track.....					
Total length of main track.....					
Length of sidings, switches, etc.....					
Total, computed as single track..					
Length of line under construction.....					

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M.	Tons	Cords	Tons			

DESCRIPTION OF ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		

Names of the several cities and towns in which the railways operated by the Company are located:.....

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With.....				
With.....				
With.....				
With.....				
No. junctions with other railways.....				
No. of overhead bridges.....				
No. of highway crossings.....				
Height of overhead bridges above rail level.....				
Radius of sharpest curve.....				
No. of feet per mile of heaviest gradient.....				
Gauge of railway.....				
Width of devil strip.....				
Number of tracks at crossings.....				

Number of above crossings at which frogs are inserted in the tracks..... None

GENERAL REMARKS AND EXPLANATIONS.

.....
.....
.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property.....						
Damage to property of Municipality.....						
Damage to private property.....						
Total.....						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers.....						
Employees.....						
Other persons.....						
Totals.....						

STATEMENT OF EACH ACCIDENT.

.....
.....
.....
.....

WAGES STREET RAILWAY CO.'S OR RADIAL RAILWAYS.

	No. Employed	Average No. of Hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature Winders					
Machinists and Mechanics					
Car Cleaners					
Average number of employees					
Watchmen					
Switchmen and Crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Buffalo and Fort Erie Ferry & Railway Co.

Names and business address of principal officers: President, Frank V. E. Bardoe, Morgan Bldg., Buffalo, N.Y.; Vice-President, Ray M. Stanley, Marine Trust Co. Ltd., Buffalo, N. Y.; Treasurer, William P. Luedeke, 14 Court St., Buffalo, N.Y.; Clerk of Corporation, Lillian C. Wagner, Morgan Bldg., Buffalo, N.Y.; General Counsel, Ray M. Stanley, Marine Trust Co. Bldg., Buffalo, N.Y. Name of officer, and address, to whom correspondence regarding this report should be addressed: Ray M. Stanley, General Counsel, Buffalo, N.Y.

Names and residence of board of directors: Frank V. E. Bardoe, Main St., Buffalo, N.Y.; Lillian C. Wagner, Morgan Bldg., Buffalo, N.Y.; William P. Luedeke, 14 Court St., Buffalo, N.Y.; Ray M. Stanley, Marine Trust Bldg., Buffalo, N.Y.; George I. Roberts, Morgan Bldg., Buffalo, N.Y.

ANNUAL REPORT OF THE

CORNWALL STREET RAILWAY, LIGHT & POWER COMPANY, LIMITED.

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Cornwall, Ont.
Name of Company: The Cornwall Street Railway, Light & Power Company, Limited.
Date of Incorporation: Letters Patent, 18th April, 1902.
Dates of subsequent legislation: None.
Date of Expiry of Franchise: 1st September, 1934.
Amount paid to Municipality per year per mile of track.....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings:
% on $.....
Total amount paid Municipality during year for franchise.....$.....
Appraised value of Plant and Tracks for purposes of Taxation.....
Total taxes paid during year to Municipality: $1,136.25.
Amount of aid received from Municipality, if any: None.
Power consumed per car mile in kilowatt hours: No meter.
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars: Passenger, 9 miles; Freight, 5 miles per hour.
State if power is purchased or generated by Company: Generated by Company.
State if power is generated by steam or water power: Water power.
Give number of power houses: One.

General Exhibit:

Gross earnings from operation			$72,229 06
Operating expenses			45,482 44
Net earnings from operation			$26,746 62
Miscellaneous income:			
Profit on park operation		$262 82	
Total miscellaneous income			$262 82
Gross income above operating expenses			$27,009 44
Charges upon income accrued during the year:			
Interest on funded debt		$4,550 00	
Interest and discount on unfunded debts and loans		.....	
Taxes, Municipal	$1,136 25		
Taxes, Provincial	65 00		
Taxes, Commutation	.....	$1,201 25	
	.....		
Rentals of leased railways	.....		
Payments to sinking and other special funds	.....		
Depreciation	.....	$10,000 00	
Other deductions from income:			
Loss on farm operations, 1923	.....	95 36	
Total charges and deductions from income			15,846 61
Net divisible income			$11,162 83
Dividends declared: nil			
Total dividends declared			.....
Surplus for the year ending December 31, 1923			$11,162 83
Amount of surplus, December 31, 1922			1,049 38
Credits to profit and loss account during the year:			
Sundry interest		$130 71	
Total credits		$130 71	

Debits to profit and loss account during the year:		
Bond discount written off	$541 68	
Income tax, 1922	886 02	
Total debits	1,427 68	
Net amount credited to profit and loss		$1,296 97
Total surplus, December 31, 1922		$10,915 24

EARNINGS AND EXPENSES OF OPERATION.

Earnings from Operation:	
Receipts from passengers carried	$30,606 95
" from carriage of mails	1,400 00
" from carriage of express and parcels	.....
" from carriage of freight	38,172 68
" from tolls for use of tracks by other companies	.....
" from rentals of buildings and other property	.....
" from advertising in cars	555 00
" from interest on deposits	.....
Other earnings from operation:	
Car checking, etc	1,494 43
Gross earnings from operation	$72,229 06
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	$3,987 43
General office expenses and supplies	428 00
Legal expenses	59 00
Insurance	2,039 26
Switching charges, if any	.....
Other general expenses: Auditing, Telephones, Advertising, etc	680 43
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	$3,273 76
Repair of electric line construction	268 43
Repair of buildings	.....
Maintenance of Equipment:	
Repair of cars	6,754 90
Repair of electric equipment of cars	4,440 82
Repair of miscellaneous equipment	106 37
Provender and stabling	.....
Transportation expenses:	
Cost of electric motive power, $3,048 03; less power sold, $.....; net	3,048 03
Wages and compensation of persons employed in conducting transportation	18,476 25
Removal of snow and ice	687 66
Damages for injuries to persons and property	255 41
Tolls for trackage over other railways	.....
Rentals of buildings and other property	2 00
Other transportation expenses: Clothing, tickets, etc	974 69
Total operating expenses	$45,482 44

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extensions of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Improvement to second street track	$8,578 46	
Total additions to railway		$8,578 46
Additions to equipment:		
Additional cars (..... in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		

Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property:		
Total additions to other permanent property		.....
Total additions to property accounts		$8,578 46
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		$8,578 46

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$285,693 41
Cash and current assets:		
Cash	$1,846 21	
Bills and accounts receivable	2,797 64	
Sinking and other special funds	.....	
Other cash and current assets:		
Stores and unexpired insurance	1,348 39	
Bond discount	5,822 93	
Total cash and current assets		11,815 17
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and Loss balance—Deficit		.....
Total		$297,508 58

Liabilities:		
Capital stock, common		$100,000 00
Capital stock, preferred		100,000 00
Total capital stock		$200,000 00
Funded debt		65,000 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	$1,387,63	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		1,387 63
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		
Sinking and other special funds:		
Reserve for depreciation	$17,728 42	
Reserve for injuries and damages	2,477 29	
Total sinking and other special funds		20,205 71
Profit and loss balance—surplus		10,915 24
Total		$297,508 58

CAPITAL STOCK—REAL ESTATE MORTGAGES

Capital Stock:		
Capital stock authorized by law, common	$100,000 00	
Capital stock authorized by law, preferred	100,000 00	
Total capital stock authorized by law	$200,000 00	
Capital stock authorized by votes of company, comomn	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		$100,000 00
Capital stock issued and outstanding, preferred		100,000 00
Total capital stock outstanding		$200,000 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$200,000 00
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Totals				

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest accrued during the year
First mortgage bonds	7%	Oct. 1, 1934	$65,000 00	$4,550 00
Totals			$65,000 00	$4,550 00

Sinking and Other Special Funds

Amount, December 31, 1922, of depreciation fund		$17,300 00
of injuries and damages fund		2,477 29
Total, December 31, 1922		$19,777 29
Additions during the year to depreciation fund	$10,000 00	
		10,000 00
Total, including additions		$29,777 29
Deductions during the year from depreciation fund	$9,571 58	
from injuries and damage fund		
		9,571 58
Total sinking and other special funds, December 31, 1923		$20,205 71

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.:	
Number of passengers paying revenue carried during the year	651,909
Number carried per mile of main railway track operated	162,977
Number of car miles run:	
Passenger	191,000
Freight	21,400
Average number of persons employed	29
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	4.7c
Amount of passenger earnings per mile of road	$7,651 74
Freight:	
Number of tons freight earning revenue	167,825
Number of tons freight carried per mile of road	25,820
Average amount received for each ton of freight	21½c
Average receipts per ton of freight per mile	3.3c
Average rate of speed of passenger cars per hour	9
Average rate of speed of freight cars per hour	5

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	8	..	..	2	....	..	..	..	..	..	..	..	1	....	....	....
Open passenger cars	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	....

MISCELLANEOUS EQUIPMENT.

	Total Number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER).

Railway owned, etc.	Owned	Held under Lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	4	.....	.....	4	4
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	4	.....	.....	4	4
Length of sidings, switches, etc.	2½	.....	.....	2½	2½
Total, computed as single track	6½	.....	.....	6½	6½
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live Stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M.	Tons	Cords	Tons			
.....	1650	.....	1417	.....	.....	.....	48600	.....	49725	66,433	167,825	(Lumber includes pulpwood)

DESCRIPTION OF ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General Remarks
Steel	Iron	Steel	Iron		
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: Cornwall, Ont.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:				
With.....				
With.....				
With.....				
With.....				
No. junctions with other railways....				
No. of overhead bridges.....				
No. of highway crossings.....				
Height of overhead bridges above rail level.....				
Radius of sharpest curve.....				
No. of feet per mile of heaviest gradient				
Gauge of railway.....				
Width of devil strip.....				
Total number of tracks at crossings.....				
Number of above crossings at which frogs are inserted in the tracks.....				

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property.....						
Damage to property of Municipality.....						
Damage to private property.....		1				
Total.....		1				

Total amount paid during year for damages caused by accidents: $255.41.

ACCIDENTS TO PERSONS.

Killed or injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons			Nil			
Totals						

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY CO.'S OR RADIAL RAILWAYS.

	No. employed	Average number of hours on duty per Day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors: One man car operators	8	10	$3 70	$3 80	$4 00
Motormen	1	11			5 50
Brakemen	2	11			4 07
Roadmen	4	9½	3 00	3 00	3 30
Linemen	1	10			4 00
Power house operators	3	8			3 66
Blacksmiths	1	9½			3 80
Firemen					
Electricians	1	9½			4 75
Armature winders					
Machinists and mechanics (repair men)	4	9½	3 50	3 80	4 00
Car cleaners	1	12			3 00
Average number of employees	26				
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate Name and Address of the Company: Cornwall Street Railway, Light & Power Company, Limited, Cornwall, Ont.

Names and business addresses of principal officers: President, E. A. Macnutt, Sun Life Building, Montreal, Que.; Vice-President, Wm. Hodge, Cornwall, Ont.; Treasurer, J. W. Brown, Sun Life Building, Montreal, Que.; Auditors, P. S. Ross & Sons, Chartered Accountants, Montreal, Que.; Manager, W. L. Macfarlane, Cornwall, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: W. L. Macfarlane, Manager, Cornwall, Ont.

Names and residence of Board of Directors: Ernest A. MacNutt, Sun Life Building, Montreal, Que.; William Hodge, Cornwall, Ont.; Albert B. Colville, Sun Life Building, Montreal, Que.; Henry P. Thornhill, Sun Life Building, Montreal, Que.

ANNUAL REPORT OF THE

FORT WILLIAM ELECTRIC RAILWAY.

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: City of Fort William.
Name of Company: Fort William Electric Street Railway.
Date of Incorporation: April 4, 1908, Sec. 2, Chap. 80.8, Edw. VII.
Dates of subsequent legislation: April 13, 1909, Sec. 7, chap. 106.9, Edw. VII; March 24, 1911, Secs. 6-7, Chap. 88, 1 Geo. V.
Franchise owned by City.
Amount paid to Municipality per year per mile of track.....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings: % on $.....
Total amount paid Municipality during year for franchise.....$.....
Appraised value of Plant and Tracks for purposes of taxation .....
Total Taxes paid during year to Municipality.....
Amount of aid received from Municipality, if any .....
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt hours.....
Cost of power per car mile.....
Average speed of cars.....
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Water.
Number of power houses: One.

General Exhibit:

Gross earnings from operation			$183,823 43
Operating expenses			150,013 27
Net earnings from operation			$33,810 16
Miscellaneous income:			
Levy from City		.....	
Total miscellaneous income			
Gross income above operating expenses			$33,810 16
Charges upon income accrued during the year:			
Interest on funded debt		$65,184 34	
Interest and discount on unfunded debts and loans		.....	
Taxes, Municipal	.....		
Taxes, Provincial	.....		
Taxes, Commutation	.....		
Rentals of leased railways	.....		
Payments to sinking and other special funds:	$35,509 20	.....	
Less surplus earnings on sinking fund	5,602 34	.....	
		29,906 86	
Other deductions from income:	.....		
Total charges and deductions from income			$95,091 20
Net divisible income			$61,281 04
Dividends declared.....per cent. on $.....	.....	.....	
.....per cent on	.....	.....	
Total dividends declared			.....
Deficit for the Year Ending December 31, 1922			$61,281 04

Amount of surplus or deficit, December 31, 1921	.....
Credits to profit and loss account during the year:	
Total credits	.....
Debits to profit and loss account during the year	.....
Net amount credited to profit and loss	.....
Total deficit, December 31, 1923	$61,281 04

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried	$181,309 02
from carriage of mails	920 00
from carriage of express and parcels	.....
from carriage of freight	665 25
from tolls for use of tracks by other companies	.....
from rentals of buildings and other property	.....
from advertising in cars	761 09
from interest on deposits	.....
Other earnings from operation	168 07
Gross earnings from operation	$183,823 43
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	$5,426 95
General office expenses and supplies	1,762 81
Legal expenses	393 96
Insurance	5,556 92
Park expense	2,227 00
Other general expenses:	
Accident reserve	2,500 00
General	464 25
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	$14,784 51
Repair of overhead construction	2,276 49
Repair of buildings	14 77
Maintenance of Equipment:	
Repair of cars	$16,945 06
Repair of electric equipment of cars	9,562 85
Repair of miscellaneous equipment	2,188 25
Provender and stabling	.....
Transportation Expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	$21,398 54
Wages and compensation of persons employed in conducting transportation	61,106 04
Removal of snow and ice	2,404 87
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses	.....
Total operating expenses	$150,013 27

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to Railway:		
Extension of tracks (length.....feet).....	.....	
New electric line construction (length.....feet).....	.....	
Other additions to railway.....	.....	
.....	.....	
Total additions to railway.....		.....
Additions to Equipment:		
Additional cars (.....in number).....	.....	
Electric equipment of same.....	.....	
Other additional rolling stock.....	.....	
Other additions to equipment.....	.....	
.....	.....	
Total additions to equipment.....		.....
Additions to Land and Buildings:		
Additional land necessary for operation of railway.....	.....	
New electric power stations, including machinery, etc.....	.....	
Additional equipment of power stations.....	.....	
Other new buildings necessary for operation of railway.....	.....	
Total additions to land and buildings.....		.....
Additions to Other Permanent Property:		
Total additions to other permanent property.....		.....
Total additions to property accounts.....		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts).....	.....	
Total deductions from property accounts.....		.....
Net addition to property accounts for the year.....		.....

GENERAL BALANCE SHEET.

Assets:		
Cost of Railway:		
Roadbed and tracks.....	$619,499 92	
Electric line construction, including poles, wiring, feeder lines, etc.....	25,000 00	
Mt. McKay Railway.....	9,000 00	
Engineering and other expenses incident to construction.....	.....	
Other items of railway cost: Port Arthur end.....	49,399 79	
Total cost of railway owned.....		$702,899 71
Cost of Equipment:		
Passenger cars and other rolling stock.....	$120,909 54	
Electric equipment of same.....	46,750 00	
Other items of equipment: Murphy Park.....	6,256 33	
General	22,216 31	
Total cost of equipment owned.....		196,132 18
Cost of Land and Buildings:		
Land necessary for operation of railway.....	$19,593 11	
Electric power stations, including equipment.....	33,967 39	
Other buildings necessary for operation of railway.....	66,544 60	
Total cost of land and buildings owned.....		120,105 10
Other Permanent Property:		
Uncompleted construction	$17,553 08	
Materials on hand.....	55,309 93	
Total cost of other permanent property owned.....		72,863 01
Total permanent investments.....		$1,092,000 00

Cash and Current Assets: Nominal assets—deficits to 1918		$225,000 00
Cash	$475 00	
Bills and accounts receivable	244 25	
Sinking and other special funds	456,777 08	
Other cash and current assets: Insurance unexpired	2,535 05	
Street railway stores	20,349 83	
Total cash and current assets		480,381 21
Miscellaneous Assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—deficit:		
Less special reserve nominal assets	$325,354 39	
Balance transferred to utilities	184,905 79	
General loss and gain	$140,448 60	
Total		$1,797,381 21
Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$1,317,000 00
Real estate mortgages		.....
Current Liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities: Tickets in circulation	$3,087 92	
Accident reserve	4,331 00	
Conductors' tickets	140 00	
Total current liabilities		7,558 92
Accrued Liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities: City of Fort William	$16,045 21	
Total accrued liabilities		16,045 21
Sinking and Other Special Funds		456,777 08
Total sinking and other special funds		.....
Profit and loss balance—surplus		.....
Total		$1,797,381 21

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital Stock:		
Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote		.....
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....

Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common		.....
Amount of stock held, preferred		.....
Total stock held		

Real Estate Mortgages.

Description of mortgaged property.	Rate of interest.	Mortgage when due.	Amount.	Interest paid during the year.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

Funded Debt—Sinking and other Special Funds.

Funded Debt— Description of Bonds, etc.	Rate of interest.	Day of maturity.	Amount Outstanding.	Interest paid during the year.
B.L. 509—Award, 1908	5 %	Oct. 1, 1938.	$ 52,000 00	$2,600 00
" 617—General	4½%	Feb. 1, 1939.	170,000 00	7,650 00
" 699—Street cars	4½%	Aug. 1, 1924.	13,500 00	607 50
" 732—General	4½%	Feb. 1, 1940.	137,000 00	6,165 00
" 606—Mt. McKay Railway	4½%	Feb. 1, 1929.	9,000 00	405 00
" 845—Paving	4½%	Feb. 1, 1926.	20,000 00	900 00
" 853—General	4½%	Feb. 1, 1941.	67,000 00	3,015 00
" 863—Street cars	4½%	Feb. 1, 1926.	40,500 00	1,822 50
" 1019—Paving	4½%	June 1, 1926.	5,000 00	225 00
" 1193—General	5 %	Aug, 1942.	200,000 00	10,000 00
" 1292— "	5 %	Feb. 1, 1933.	140,000 00	7,000 00
" 1390— "	5 %	Feb. 1, 1944.	238,000 00	11,900 00
" 1830— "	5 %	Feb. 1, 1938.	225,000 00	11,250 00
Totals	.....	.....	$1,317,000 00	$63,540 00

Sinking and Other Special Funds.

Amount December 31, 1922, of Sinking Fund	$407,647 63
of fund	.....
Total, December 31, 1923	.....
Additions during the year to fund	
to fund	$ 47,779 15
Total including additions	.....
Deductions during the year from fund	
from adjustments (added) fund	1,350 30
Total sinking and other special funds, December 31, 1923	$455,777 08

Volume of Traffic—Equipment, Etc.

Volume of Traffic, Etc.:

Number of passengers paying revenue carried during the year	$2,963,054
Number carried per mile of main railway track operated	132,688
Number of car miles run	648,348
Average number of persons employed	58
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	6.107 cents
Amount of passenger earnings per mile of road	$8,026 01

Freight:

Number of tons freight earning revenue—no record, only construction material for Chippewa	
Number of tons freight carried per mile of road—no record, only construction material for Chippewa	
Average amount received for each ton of freight—no record, only construction material for Chippewa	
Average receipts per ton of freight per mile—no record, only construction material for Chippewa	
Average rate of speed of passenger cars per hour	10 miles
Average rate of speed of freight cars per hour	

Description of Equipment.	No. of motor cars.	Trailer cars.	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters.
Box passenger cars	18	5	..	....	....	..	..	..	..	..	..	1	1	19	25	1
Open passenger cars	1	..	..	....	....	..	..	..	..	..	..	....	....	....	....	....

Miscellaneous Equipment.

	Total Number.
Barges and omnibuses	
Carts and snow sleds	1
Other railway rolling stock—flat cars	2
Other highway vehicles—Ford car	1
Horses	
Other items of equipment—hand car	1
" " " —push cars	5

ROAD OPERATED AT CLOSE OF YEAR 1923.

	Single track.	Double track.
Eastern boundary to Yonge and Gore street	.019	4.353
Junction of Mail Line Pacific Ave. to Junction main line Sprague.	2.343	.582
Junction of Yonge St. to Junction end of Montreal Street	1.199	....
Junction Montreal Ext. at Kam Bridge to Fort William Paper Mill	3.966	....
Junction to Main Line Syndicate Ave. to Mission River	1.780	....
Junction Pacific Simpson St. Athabasca to William Street	.255	....
Junction Walsh, Franklin to car barns	.730	....
Junction Mission Extension to G. T. Elevator	.265	....
Junction Main Line Yonge St. to Neebing Ave	.851	....
Junction Syndicate Ave. to Franklin	.269	....
	11.627	4.935
Total computed as single track miles survey, dated Feb. 1922	21.497	
Chippewa Extension	1.433	
Mt. McKay & Kakabeka Falls Railway	2.5	
	25.430	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER).

Railway owned, etc.	Owned.	Held under lease or contract.	Trackage over other railways.	Total owned, leased, etc.	Total operated.
Length of railway line					
Length of second main track					
Total length of main track					
Length of sidings, switches, etc					
Total, computed as single track					
Length of line under construction					

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING JUNE 30, 1922.

Flour.		Grain.		Live stock.		Lumber.		Fuel.		All other articles.	Total tonnage	Remarks
Bbls.	Tons.	Bush.	Tons.	No.	Tons.	Ft. B.M.	Tons.	Cords.	Tons.			

DESCRIPTION ROAD BED, ETC.

Rails.		Weight per yard.		No. ties to mile.	General Remarks.
Steel.	Iron.	Steel.	Iron.		
.....	.....	60	.....	2640	Outside construction on extensions.
.....	.....	87	.....	2640	Paved streets laid on concrete.
.....	.....	90	.....	1320	" " " " "

Names of the several cities and towns in which the railways operated by the Company are located: Fort William and Port Arthur.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads.	Unprotected.	How protected.	Number of Tracks at Crossing.	
			Railroad tracks.	Railway tracks.
With Canadian Northern Railway at Victoria Ave.....	protected....	B.O. 19319 and B.O. 23983.....	2	2
With Canadian Northern Railway at Franklin St.....	protected....	B.O. 19319 and B.O. 23983.....	1	1
With Canadian Northern Railway at Frederica St.....	protected....	Half interlocked B.O. 7601....	2	1
With Canadian Northern Railway at James St.....	protected....	.....	1	1
With Canadian Pacific Railway Spur at Syndicate Ave.....	unprotected..	10895	1	2
With Canadian Pacific Railway James St.....	protected....	.....	2	1
With Grand Trunk at James and Queen St.....	protected....	8089	2	1
With Grand Trunk at Montreal.	unprotected..	8089	1	1
With Grand Trunk at Syndicate Ave.....	protected....	19811	1	2
With Grand Trunk at Sprague..	protected....	23028	1	1
With Grand Trunk at Mission..	unprotected..	20879	1	1
With Industrial Tracks, Montreal.....	.....	.....	1	1
With Canadian Pacific Railway at Montreal.....	.....	.....	1	1
No. junctions with other railways—one, Mt. McKay and K. Falls Railway.....	.....	.....	.....	.....
No. of overhead bridges.....	.....	.....	.....	.....
No. of highway crossings.....	.....	.....	.....	.....
Height of overhead bridges above rail level.....	.....	.....	.....	.....
Radius of sharpest curve.....	37'	.....	.....	.....
No. of feet per mile of heaviest gradient.....	6%	.....	.....	.....
Gauge of railway.....	4.8½	.....	.....	.....
Width of devil strip.....	6 ft. 11.3	.....	.....	.....
Total number of tracks at crossings.....	.....	.....	17	16

Number of above crossings at which frogs are inserted in the tracks—diamonds.....30

SUMMARY OF ACCIDENTS TO PROPERTY.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons						
Totals						

STATEMENT OF EACH ACCIDENT.

.....

.....

.....

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAYS.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature Winders					
Machinists and Mechanics					
Car Cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

Corporate Organization.

Corporate name and address of the Company : Fort William Electric Railway, Fort William, Ont.

Names of principal officers: Mayor Newton Edmeston; treasurer, Harry James; Clerk of Corporation, Alexander McNaughton; General Counsel, Morris & Babe; Auditor, Percy H. B. Dawson; General Manager, Charles Moors.

Name of officer and address, to whom correspondence regarding this report should be addressed: H. James, Treasurer, City Hall, Fort William, Ont.

ANNUAL REPORT OF THE

GUELPH RADIAL RAILWAY

Operated by the Hydro-Electric Power Commission of Ontario

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: City of Guelph and Township of Guelph.
Name of Company: Guelph Radial Railway.
Date of Incorporation: 1895; Railway taken over May 1, 1921, by the Commission.
Dates of subsequent legislation: 1901, 1903, 1905, 1908, 1914, 1921.
Date of expiry of franchise: 1925.
Amount paid to Municipality per year per mile of track.....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings, % on $.....$.....
Total amount paid Municipality during year for franchise.....$.....
Appraised value of plant and tracks for purposes of taxation: Taxable on land only.
Total taxes paid during year to Municipality: $2,373.49.
Amount of aid received from Municipality, if any: City assumes any deficits on operation.
Power consumed per car mile in kilowatt hours: 3.4.
Cost per horse power for motive power used in operating plant: Power plant.
Cost of power per kilowatt per hour: 1.3 cents.
Cost of power per car mile: 4.5 cents.
Average speed of cars: 7.2 miles.
State if power is purchased or generated by Company: Purchased from City of Guelph.
State if power is generated by steam or water power.....
Give number of power houses.....

General Exhibit:

Gross earnings from operation		$83,117 09
Operating expenses		65,263 39
Net earnings from operation		$17,853 70
Miscellaneous Income:		
.....	.....	
.....	.....	
Total miscellaneous income		.....
Gross income above operating expenses		$17,853 70
Charges upon income accrued during the year:		
Interest on funded debt	$29,081 00	
Interest and discount on unfunded debts and loans	.....	
Taxes, Municipal		
Taxes, Provincial		
Taxes, Commutation		
	2,373 49	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		31,454 49
Net divisible loss		$13,600 79

Dividends declared.....per cent. on $.....	.....	
.....per cent. on $.....	.....	
Total dividends declared.....		.....
Deficit for the year ending December 31, 1923.....		$13,600 79
Amount of deficit, December 31, 1922.....		1,932 01
		$15,532 80
Credits to profit and loss account during the year:		
Charged to City of Guelph, as per agreement.....	$12,982 12	
		12,982 12
Total credits.....	.....	
Debits to profit and loss account during the year.....	.....	
Total debits.....	.....	
Net amount credited to profit and loss.....		
Total deficit, December 31, 1922.....		$2,550 68

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried.....	$74,223 51
carriage of mails.....	.....
carriage of express and parcels.....	.....
carriage of freight.....	5,885 25
tolls for use of tracks by other companies*.....	1,760 00
rentals of buildings and other property.....	.....
advertising in cars.....	540 00
interest on deposits.....	.....
Other earnings from operation: Use of power.....	708 33
Gross earnings from operation.....	$83,117 09
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants.....	$6,704 72
General office expenses and supplies.....	2,674 61
Legal expenses.....	250 48
Insurance.....	4,358 67
Advertising.....	112 70
Other general expenses:	
Pensions.....	131 32
Valuation expenses.....	256 30
Stationery and printing.....	1,328 16
Maintenance of roadbed and buildings:	
Repair of roadbed and track.....	6,352 78
Repair of electric line construction.....	587 14
Repair of buildings.....	1,051 25
Maintenance of Equipment:	
Repair of cars.....	8,430 69
Repair of electric equipment of cars.....	1,027 79
Repair of miscellaneous equipment.....	1,811 20
Provender and stabling.....	.....
Transportation Expenses:	
Cost of electric motive power, $.....; less power sold, $.....net	8,040 46
Wages and compensation of persons employed in conducting transportation.....	21,036 22
Removal of snow and ice.....	.....
Damages for injuries to persons and property.....	37 39
Tolls for trackage over other railways.....	.....
Rentals of buildings and other property.....	5 00
Other transportation expenses.....	1,066 51
Total operating expenses.....	$65,263 39

*Power.

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Tracks (length.....feet).....credit	$3,779 29	
Electric line construction (length.....feet).....	192 08	
Other additions to railway	.....	
Total additions to railway.....credit		$3,587 21
Additions to equipment:		
Additional cars (balance in number).....	$9,460 42	
Electric equipment of same.....	507 19	
Other additional rolling stock.....	.....	
Other additions to equipment: Shop tools—credit.....	263	
Total additions to equipment.....		9,964 98
Additions to land and buildings:		
Additional land necessary for operation of railway.....	$10 86	
New electric power stations, including machinery, etc.....	.....	
Additional equipment of power stations.....	.....	
Other new buildings necessary for operation of railway—credit.....	831 00	
Total additions to land and buildings.....credit		820 14
Total additions to property accounts.....		$5,557 63
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):	.....	
Total deductions from property accounts.....		.....
Net addition to property accounts for the year.....		$5,557 63

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks.....	$247,158 75	
Electric line construction, including poles, wiring, feeder lines, etc.....	20,922 97	
Interest accrued during construction of railway.....	1,618 05	
Engineering and other expenses incident to construction...	.....	
Other items of railway cost.....	.....	
Total cost of railway owned.....		$269,699 77
Cost of equipment:		
Passenger cars and other rolling stock.....	$72,243 34	
Electric equipment of same.....	35,976 90	
Other items of equipment:		
Shop tools, etc.....	2,006 26	
Truck.....	1,255 38	
Total cost of equipment owned.....		111,481 88
Cost of land and buildings:		
Land necessary for operation of railway.....	$2,815 30	
Electric power stations, including equipment.....	500 00	
Other buildings necessary for operation of railway.....	17,396 84	
Total cost of land and buildings owned.....		20,712 14
Other permanent property:		
Miscellaneous (organization, etc.).....	$15,603 00	
Total cost of other permanent property owned.....		15,603 00
Total permanent investments.....		$417,496 79

Cash and current assets:		
Cash	$1,209 95	
Bills and accounts receivable	673 29	
Sinking and other special funds	.....	
Other cash and current assets:		
Funds on deposit with the Commission	7,227 71	
Due by the City of Guelph	12,982 12	
Total cash and current assets		$22,093 07
Miscellaneous assets:		
Materials and supplies	$7,265 15	
Other assets and property—Insurance prepaid	185 72	
Deferred valuation expenses	1,751 40	
Total miscellaneous assets		9,202 27
Profit and Loss Balance—deficit		2,550 68
Total		$451,342 81
Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$150,000 00
Real estate mortgages		139,760 83
Current liabilities:		
Loans and notes payable	$140,000 00	
Audited vouchers and accounts	778 65	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Unredeemed tickets	1,264 16	
Total current liabilities		142,042 81
Accrued liabilities:		
Interest accrued and not yet due	$9,300 00	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		9,300 00
Sinking and other special funds:		
General reserve	$10,239 17	
Total sinking and other special funds		10,239 17
Profit and Loss Balance—Surplus		.....
Total		$451,342 81

Capital Stock—Real Estate Mortgages

Capital Stock:	
Capital stock authorized by law, common	.....
Capital stock authorized by law, preferred	.....
Total capital stock authorized by law	.....
Capital stock authorized by votes of company, common	.....
Capital stock authorized by votes of company, preferred	.....
Total capital stock authorized by vote	.....

Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held		.....

REAL ESTATE MORTGAGES

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded debt— Description of Bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Purchase cost of the Railway payable to the City of Guelph in 20 years from May 1, 1921.	4½	Instalments May 1 and Nov. 1	$139,760 83 150,000 00	$11,700 00 Includes principal 9,000 00
Totals	.....	.....	$289,760 83	$20,700 00

SINKING AND OTHER SPECIAL FUNDS

Amount, December 31, 1922, of General Reserve fund	$5,005 69	.....
of.....fund	.....	.....
Total, December 31, 1922		.....
Additions during the year to General Reserve fund	$5,233 48	
to.....fund	.....	
Total including additions		.....
Deductions during the year from.....fund,	.....	
from.....fund,	.....	
Total sinking and other special funds, December 31, 1923		$10,239 17

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.	
Number of passengers paying revenue carried during the year	1,326,468
Number carried per mile of main railway track operated	156,239
Number of car miles run	300,532
Average number of persons employed	36
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	5.9c
Amount of passenger earnings per mile of road	719 93
Freight:	
Number of tons freight earning revenue	.....
Number of tons freight carried per mile of road	.....
Average amount received for each ton of freight	.....
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	7.2 miles
Average rate of speed of freight cars per hour	.....

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	7	..	..	1	....	..	..	..	..	..	..	..	1	9	....	9
Open passenger cars	..	..	..	....	....	..	..	..	..	..	..	..	..	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles: overhead truck	1
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway Owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	8.490	.....	.....	.....	8.490
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	8.490	.....	.....	.....	8.490
Length of sidings, switches, etc.	1.560	.....	.....	.....	1.560
Total, computed as single track	10.050	.....	.....	.....	10.050
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live Stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION OF ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General Remarks
Steel	Iron	Steel	Iron		
.....	.....	60 lb	.....	2,640	Unpaved.....5.362 miles
.....	.....	60 lb	.....	2,640	Paved.....1.108 miles
.....	.....	80 lb	.....	440	Paved..... .426 miles
.....	.....	A.S.C.E. 80 lb, 7 in.	.....	440	Paved..... .128 miles
.....	.....	80 lb, 7 in.	.....	2,640	Paved..... .98 miles
.....	.....	85lb C.P.R.	.....	2,640	Unpaved..... .597 miles
.....	.....	85 lb	.....	2,640	Paved.....1.449 miles

Names of the several cities and towns in which the railways operated by the Company are located: Guelph.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (3 in number), viz.:				
With C.P.R. Elora Road, Guelph.		Derail	1	1
With G.T.R. Elora Road, Guelph.		Flag	1	1
With C.P.R. York Road, Guelph..		Flag	1	1
With.....	.....	.....	.....	.....
No. junctions with other railways	.....	.....	.....	.....
No. of overhead bridges.....	.....	.....	.....	.....
No. of highway crossings.....	.....	.....	.....	.....
Height of overhead bridges above rail level.....	.....	.....	.....	.....
Radius of sharpest curve.....	.....	.....	.....	.....
No. of feet per mile of heaviest gradient	.....	.....	.....	.....
Gauge of railway.....	.....	.....	.....	.....
Width of devil strip.....	.....	.....	.....	.....
Total number of tracks at crossings.....			3	3

Number of above crossings at which frogs are inserted in the tracks..... 1

General Remarks and Explanations.

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.....

.....

Summary of Accidents to Property.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

Accidents to Persons.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons		16				16
Totals		16				16

Statement of Each Accident.

.....

.....

.....

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAYS.

	No. Employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors	1	10	$4 00	.....	.....
Conductors	15	.....	3 69	to	$4 05
Motormen	.....	9	.....	.....	.....
Starters	.....	.....	.....	.....	.....
Roadmen	2	10	3 50	.....	.....
Linemen	.....	.....	.....	.....	.....
Engineers	.....	.....	.....	.....	.....
Blacksmiths	.....	.....	.....	.....	.....
Firemen	.....	.....	.....	.....	.....
Electricians	1	9	4 50	.....	.....
Armature Winders	.....	.....	.....	.....	.....
Machinists and Mechanics	4	9	5 00	.....	.....
Car cleaners	1	10	4 50	.....	.....
Average number of employees	24	.....	.....	.....	.....
Watchmen	.....	.....	.....	.....	.....
Switchmen and crossing tenders	.....	.....	.....	.....	.....

CORPORATE ORGANIZATION.

Names of principal officers: Chairman, Sir Adam Beck, Kt., LL.D., Toronto; Commissioner, Hon. J. R. Cooke, M.P.P., Toronto; Treasurer, J. W. Gilmour, Toronto; Chief Engineer, F. A. Gaby, Toronto; Secretary, W. W. Pope, Toronto; Auditor, G. T. Clarkson, Toronto; General Superintendent, W. R. Robertson, Toronto; Superintendent, J. A. House, Toronto.

Name of Officer, and address, to whom correspondence regarding this report should be addressed: W. G. Pierdon, Accountant, Toronto.

THE HAMILTON AND BARTON INCLINE RAILWAY COMPANY, HAMILTON.

BALANCE SHEET, 31ST DECEMBER, 1923.

Assets:			
Current:			
Cash on hand		$76 66	
Bank of Nova Scotia Current		784 22	
Bank of Nova Scotia Savings		2,499 46	
Accounts receivable		74 10	
W. F. Anderson		30 00	
Oil and waste, fuel and repairs		296 55	
Dominion of Canada War Loan		4,842 10	
Insurance prepaid		499 48	
		$9,102 57	
Invested:			
Plant, equipment, roadbed, buildings, etc.		$86,440 51	
Less reserve for depreciation	$14,724 78		
Liabilities:			
Current:			
Accounts payable		.....	$1,207 61
Commutation tickets		.....	266 30
			$1,473 91

Shareholders:			
Capital stock		.....	$61,500 00
Surplus		.....	32,569 17
Balance January 1, 1923	$34,365 10		
Less dividend and charges	4,240 00		
	$30,125 10		
Net profit for period	2,444 07		
	$32,569 17		
		$95,543 08	$95,543 08

PROFIT AND LOSS FOR YEAR ENDING 31ST DECEMBER, 1923.

Earnings from January 1st to December 31st, 1923			$28,256 15
Interest			321 45
Rent			140 00
Expenses:			
Clothing		$69 75	
Fuel (gas)		.....	
Fuel (coal)		6,633 21	
General		411 85	
Insurance		844 26	
Oil and waste		58 68	
Printing and stationery		457 59	
Repairs		1,532 97	
Taxes and water rates		1,049 91	
Wages		10,307 05	
Depreciation		4,908 26	
Net profit for period		2,444 07	
		$28,717 60	$28,717 60
Profit and Loss:			
Amount forward December 31, 1922		$34,365 10	
Less directors' and auditors' fees	$550 00		
Less dividend paid in 1923	3,690 00	4,240 00	
		$30,125 10	
Net profit for 1923		2,444 07	
		$32,569 17	

CORPORATE ORGANIZATION.

Corporate name and address of the Company: The Hamilton and Barton Railway Company, Hamilton, Ontario.

Names and business address of the principal officers: President, The Hon. George Lynch-Staunton, K.C.; Vice-President, F. A. Magee, 72 James Street North, Hamilton, Ont.; Secretary-treasurer, H. B. Browne, 72 James Street North, Hamilton, Ont.

Name of officer and address to whom correspondence regarding this report should be addressed: H. B. Browne, 72 James Street North, Hamilton, Ontario.

Names and residence of Board of Directors: Hon. George Lynch-Staunton, K.C., Bank of Hamilton Building, Hamilton, Ont.: Hon. S. C. Newburn, K.C., Spectator Building, Hamilton, Ont.; E. H. Ambrose, K.C., Spectator Building, Hamilton, Ont.; F. A. Magee, 72 James Street North, Hamilton, Ont.

ANNUAL REPORT OF THE
HAMILTON MOUNTAIN PARK COMPANY, LIMITED.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Hamilton, Ont.
Name of Company: Hamilton Mountain Park Company, Limited.
Date of Incorporation: July 28th, 1899; Recorded August 19th, 1899.
Dates of subsequent legislation.....
Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track: Nil.
Further amounts, if any, paid to Municipality by way of percentage earnings: Nil.
Total amount paid Municipality during year for franchise: Nil.
Appraised value of plant and tracks for purposes of taxation:

Railway property, dwelling house, power house, tracks, cars, equipment	$126,909 22	
Less Reserve for Depreciation	43,593 27	
		$83,315 95
Total taxes paid during year to Municipality		1,594 61

Amount of aid received from Municipality, if any: None.
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars.....
State if power is purchased or generated by Company: Company purchases power from Hydro-Electric Commission.
State if power is generated by steam or water power.....
Give number of power houses: One power house—electric.

BALANCE SHEET AT DECEMBER 31, 1923.

Assets:				
Current			$59,810 02	
Cash on hand		$ 2,564 38		
Bank balance		56,928 83		
Current	$7,426 98			
Savings	49,501 85			
	$56,928 83			
Conductors' Loan Account		100 00		
Accounts receivable		216 81		
		$59,810 02		
Invested			114,394 20	
Railway property, dwelling house, power house, tracks, cars, equipment and land formerly occupied by theatre		$126,909 22		
Land		31,078 25		
		$157,987 47		
Less reserve for depreciation		43,593 27		
		$114,394 20		
Liabilities:				
Current				$3,811 50
Accounts payable		$351 00		
George F. Webb		1,000 00		
Tickets outstanding		2,460 50		
		$3,811 50		
Deferred				2,019 80
Mortgage Account				
Shareholders				168,372 92
Capital stock fully paid		$27,800 00		
Special reserve		45,134 79		
Profit and loss		95,438 13		
		$168,372 92		
			$174,204 22	$174,204 22

PROFIT AND LOSS FOR YEAR ENDING DECEMBER 31, 1923.

Earnings			$47,992 98
Ticket sales, passengers	.....		
Freight, etc	.....		
Rent receivable			75 00
Interest			949 08
Expenses		$34,482 85	
Fuel, power and light	$1,708 06		
General, taxes, directors' fees and salary	4,226 28		
Insurance	2,224 73		
Insurance claim	300 00		
Oil and waste	143 34		
Repairs	7,294 58		
Wages	12,240 10		
Depreciation	6,345 45		
	$34,482 85		
Net profit for period		14,534 21	
		$49,017 06	$49,017 06
Profit and Loss:			
Balance, January 1, 1923			$84,528 55
Net profit for year 1923			14,534 21
Income tax, 1922		1,956 63	
Dividend		$1,668 00	
Balance per balance sheet		95,438 13	
		$99,062 76	$99,062 76

CORPORATE ORGANIZATION.

Corporate name and address of the Company: The Hamilton Mountain Park Company, Limited, Hamilton, Ont.

Names and business address of principal officers: President, George F. Webb, Wentworth St. S., Hamilton, Ont.; Vice-President, Adam Inch, Mountain Top, Hamilton, Ont.; Treasurer, George F. Webb, Wentworth St. S., Hamilton, Ont.; Auditor, Clark, Houston & Co., Hamilton, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: George F. Webb, President, Hamilton, Ont.

Names and residence of Board of Directors: George F. Webb, Wentworth St. S., Hamilton, Ont.; Thomas E. Webb, 45 Mountain Park Ave., Hamilton, Ont.; Adam Inch, Mountain Top, Hamilton, Ont.

ANNUAL REPORT OF THE

HAMILTON STREET RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:		
Name of Municipality or Municipalities in which railway operates: Hamilton, Ont.		
Name of Company: The Hamilton Street Railway Company.		
Date of Incorporation: Ontario, 1873, Chapter 100.		
Dates of Subsequent Legislation: 1893, Chapter 90.		
Date of expiry of franchise: Hamilton, 1928.		
Amount paid to Municipality per year per mile of track: Barton.....$100 00 / Hamilton.... 400 00		$19,397 17
Further amounts, if any, paid to Municipality by way of percentage earnings		
% on $.....		83,013 64
Total amount paid Municipality during year for franchise.....		102,410 81
Appraised value of plant and tracks for purposes of taxation.....		292,870 00
Total taxes paid during year to Municipality.....		9,844 80
Amount of aid received from Municipality, if any.....		None

Power consumed per car mile in kilowatt hours			
Cost per horse power for motive power used in operating plant			
Cost of power per kilowatt per hour			
Cost of power per car mile			$3 05
Average speed of cars			12 miles
State if power is purchased or generated by Company: Purchased.			
State if power is generated by steam or water power: Water, steam.			
Give number of power houses: None.			
General Exhibit:			
Gross earnings from operation			$1,041,594 39
Operating expenses			836,354 37
Net earnings from operation			$205,240 02
Miscellaneous income:			
Total miscellaneous income			
Gross income above operating expenses			$205,240 02
Charges upon income accrued during the year:			
Interest on funded debt		$13,477 80	
Interest and discount on unfunded debts and loans		8,015 37	
Taxes, Municipal	$9,844 80		
Taxes, Provincial	1,546 50		
Taxes, Commutation, mileage	102,410 81	113,802 11	
Rentals of leased railways	.....		
Payments to sinking and other special funds	.....		
Other deductions from income	.....		
Total charges and deductions from income			$135,295 28
Net divisible income			$69,944 74
Dividends declared.....per cent. on $		.....	
.....per cent. on		.....	
Total dividends declared			.....
Surplus for the year ending December 31, 1923			$69,944 74
Amount of surplus, December 31, 1922			337,289 65
Credits to profit and loss account during the year		.....	
Total credits		.....	
Debits to profit and loss account during the year:			
Reserve for depreciation	$51,997 48		
Total debits		$51,997 48	
Net amount credited to profit and loss			51,997 48
Total surplus, December 31, 1923			$355,236 91

Earnings and Expenses of Operation.

Earnings from Operation:		
Receipts from passengers carried		$1,037,081 48
from carriage of mails		.....
from carriage of express and parcels		.....
from carriage of freight		.....
from tolls for use of tracks by other companies		.....
from rentals of buildings and other property		3,651 81
from advertising in cars		725 00
from interest on deposits		.....
Other earnings from operation: Chartered cars		136 10
Gross earnings from operation		$1,041,594 39

Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	$35,186 68
General office expenses and supplies	2,541 08
Legal expenses	1,303 25
Insurance	3,080 53
Switching charges, if any	.....
Other general expenses: Advertising	201 81
Incidentals	210 38
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	49,144 09
Repair of electric line construction	14,079 53
Repair of buildings	443 95
Maintenance of Equipment:	
Repair of cars	78,634 22
Repair of electric equipment of cars	57,362 70
Repair of miscellaneous equipment	.....
Provender and stabling	.....
Transportation Expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	$86,660 04
Wages and compensation of persons employed in conducting transportation	390,724 30
Removal of snow and ice	13,749 61
Damages for injuries to persons and property	37,246 95
Tolls for trackage over other railways	.....
Rentals of buildings and other property	26,866 55
Other transportation expenses: Supplies on cars	18,703 41
Heating and incidental (uniforms)	20,215 29
Total operating expenses	$836,354 37

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to Railway:		
Extension of tracks (length 4,425 feet)	$24,970 00	
New electric line construction (length.....feet)	1,663 95	
Other additions to railway	.....	
Track improvements	22,485 87	
Total additions to railway		49,119 89
Additions to Equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to Land and Buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to Other Permanent Property:		
.....	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....

Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
.....	.....	
.....	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		$49,119 89

General Balance Sheet.

Assets:		
Cost of Railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of Equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of Land and Buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other Permanent Property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$2,452,737 99
Cash and Current Assets:		
Cash	$325 00	
Bills and accounts receivable	4,396 99	
Sinking and other special funds	.....	
Other cash and current assets: Fire insurance	1,920 00	
Total cash and current assets		$6,641 99
Miscellaneous Assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—deficit		.....
Total		$2,459,379 98
Liabilities:		
Capital stock, common		$1,205,000 00
Capital stock, preferred		.....
Total capital stock		$1,205,000 00
Funded debt		280,000 00
Real estate mortgages		.....
Current Liabilities:		
Loans and notes payable	$128,231 94	
Audited vouchers and accounts	39,187 14	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	1,012 50	

Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Accident insurance reserve	$53,906 53	
Maintenance and renewal reserve	44,304 53	
Suspense	5,000 00	
Total current liabilities		271,642 64
Accrued Liabilities:		
Interest accrued and not yet due	$310 65	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		310 65
Sinking and Other Special Funds:		
Reserve for depreciation for years 1917 to 1923 inclusive	$347,189 78	
Total sinking and other special funds		347,189 78
Profit and loss balance—surplus		355,236 91
Total		$2,459,379 98

Capital Stock—Real Estate Mortgages.

Capital Stock:		
Capital stock authorized by law, common	$1,205,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$1,205,000 00	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		$1,205,000 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$1,205,000 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$1,205,000 00
Number of shares issued and outstanding, common	24,100	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	24,100	
Number of stockholders, common	8	
Number of stockholders, preferred	.....	
Total number of stockholders	8	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

REAL ESTATE MORTGAGES.

Description of mortgaged property.	Rate of interest.	Mortgage when due.	Amount.	Interest paid during the year.
Totals				

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest.	Day of maturity.	Amount outstanding.	Interest paid during the year.
First Mortgage Bonds	4½	Dec. 12, 1928	$280,000 00	$13,477 80
Totals			$280,000 00	$13,477 80

SINKING AND OTHER SPECIAL FUNDS.

Amount December 31, 1922, of maintenance and renewal fund		$56,488 88
of fund		34,713 03
Total, December 31, 1922,		$91,201 91
Additions during the year to accident insurance fund	$19,193 50	
to fund		19,193 50
Total including additions		$110,395 41
Deductions during the year from maintenance and renewal fund	$12,184 35	
from fund		12,184 35
Total sinking and other special funds, December 31, 1923		$98,211 06

Volume of Traffic—Equipment, Etc.

Volume of Traffic, Etc.:

Number of passengers paying revenue carried during the year	20,815,422
Number carried per mile of main railway track operated	617,668
Number of car miles run	2,862,891
Average number of persons employed	405
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	5.00 cents
Amount of passenger earnings per mile of road	$30,907 84

Freight:

Number of tons freight earning revenue	.....
Number of tons freight carried per mile of road	.....
Average amount received for each ton of freight	.....
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	12 miles
Average rate of speed of freight cars per hour	.....

Description of Equipment.	No. of Motor Cars.	Trailer cars.	Official cars.	Electric locomotives.	Baggage and mail express cars.	Cattle and box cars.	Refrigerator cars.	Platform cars.	Coal and dump cars.	Conductors' vans.	Tool cars.	Snow plows.	Snow sweepers.	Equipped with fenders.	Equipped with stoves.	Equipped with electric heaters.
Box passenger cars	78	14	....	....	....	....	..	..	....	..	1	..	4	97	77	15
Open passenger cars	19	....	....	....	....	....	..	..	....	..	..	..	..	19	....	....

Miscellaneous Equipment.

	Total Number
Barges and omnibuses	.....
Carts and snow sleds	.....
Other railway rolling stock	.....
Other highway vehicles	.....
Horses	.....
Other items of equipment	.....

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	17.4	.....	.....	17.4	17.4
Length of second main track	16.3	.....	.....	16.3	16.3
Total length of main track	33.7	.....	.....	33.7	33.7
Length of sidings, switches, etc.	.....	.....	.....	.....	.....
Total, computed as single track	.....	.....	.....	.....	.....
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
.....	.....	65	.....	2,460	.....
.....	.....	94	.....	528	.....
.....	.....	87	.....	528	Steel ties in concrete.

Names of the several cities and towns in which the railways operated by the Company are located: Hamilton.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Un-protected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:				
With T. H. & B. Ry.—				
Humber and James	.....	D.R. and gates	2	2
Main and Gage Ave	.....	D.R. and watchman	1	2
Barton St. East	.....	" "	1	2
Oliver Plow Works	.....	" "	1	2
Irondale	.....	" "	2	2
Grasselli Chemical	.....	" "	1	2
With G. T. Ry.—				
King and Ferguson	.....	" "	1	2
Barton and Ferguson	.....	D.R. and gates	2	2
Kenilworth and Beach Road	.....	D.R. and watchman	1	2
With Hamilton Radial Ry.—				
Kenilworth and Beach Road	.....	" "	2	2
No. junctions with other railways	3	.....	.....	.....
No. of overhead bridges	1	.....	.....	.....
No. of highway crossings	.....	.....	.....	.....
Height of overhead bridges above rail level	16 ft.	.....	.....	.....
Radius of sharpest curve	35 ft.	.....	.....	.....
No. of feet per mile of heaviest gradient	.....	.....	.....	.....
Gauge of railway	4' 8 in.	.....	.....	.....
Width of devil strip	4 ft. 5 in.	.....	.....	.....
Total number of tracks at crossings			14	20

Number of above crossings at which frogs are inserted in the tracks..... 10

General Remarks and Explanations.

Summary of Accidents to Property.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property		25				35
Damage to property of Municipality						
Damage to private property		125				46
Total		150				81

Total amount paid during year for damages caused by accidents.....

Accidents to Persons.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		12		11		23
Employees		6				6
Other persons		5		6		11
Totals		23		17		40

Statement of Each Accident.

Wages Street Railway Company or Radial Railways.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors	6	10	$4 80		
Conductors	137		3 80	$4 20	$4 80
Motormen	138		3 80	4 20	4 80
Starters	1		3 00	part time	only
Roadmen	12		4 50		
Linemen	5		6 00		
Engineers					
Blacksmiths	3		5 15		
Firemen					
Electricians	5		5 80		
Armature Winders	4		5 80		
Machinists and Mechanics	47		5 25		
Car Cleaners	12		4 25		
Average number of employees					
Watchmen	1		4 90		
Switchmen and crossing tenders	10		2 90		

Corporate Organization.

Corporate name and address of the Company: The Hamilton Street Railway Company, Hamilton, Ont.

Names and business addresses of principal officers: President, W. E. Phin, Hamilton; Vice-President, John Dickinson; Treasurer, James Dixon; Clerk of Corporation, Geo. D. Fearman; General Counsel, Gibson, Levy, Scott & Inch; Auditor, C. S. Scott, F.C.A.; General Manager, E. P. Coleman; Superintendent, Geo. E. Waller.

Name of officer, and address, to whom correspondence regarding this report should be addressed: E. P. Coleman, General Manager, Hamilton.

Names and residence of Board of Directors: J. R. Moodie, Hamilton, Ont.; James Dixon, Hamilton, Ont.; Wm. C. Hawkins, Hamilton, Ont.; John Dickinson, Hamilton, Ont.; W. E. Phin, Hamilton, Ont.; F. R. MacKelcan, Toronto; J. M. McDonald, Toronto.

ANNUAL REPORT OF THE

HAMILTON AND DUNDAS STREET RAILWAY COMPANY

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Hamilton and Dundas.
Name of Company: The Hamilton & Dundas Street Railway Company.
Date of Incorporation: Ontario, 1875, 6 chapter 87.
Dates of subsequent legislation: Ontario 1879, chapter 59; 1881, chapter 65; 1884, chapter 28; 1890, chapter 119; 1895, chapter 100; 1898, chapter 60.
Date of expiry of franchise: Hamilton, December 22, 1928; Dundas, 1927; Barton, Perpetual.
Amount paid to Municipality per year per mile of track: Hamilton, $287.19.
Further amounts, if any, paid to Municipality by way of percentage earnings: None.

Total amount paid Municipality during year for franchise	$287 19
Appraised value of Plant and Tracks for purposes of taxation	34,195 00
Total taxes paid during year to Municipality	1,605 44

Amount of aid received from Municipality, if any: None.
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars.....12 miles
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Water and steam.
Give number of power houses: None.

General Exhibit for the Year

General Exhibit:

Gross earnings from operation			$54,214 70
Operating expenses			67,123 85
Net earnings from operation			$12,909 15
Miscellaneous income		.....	
Total miscellaneous income			.....
Gross income above operating expenses			.....
Charges upon income accrued during the year:			
Interest on funded debt		$5,000 00	
Interest and discount on unfunded debts and loans		608 68	
Taxes, Municipal	$1,605 44		
Taxes, Provincial	65 70		
Taxes, Commutation	287 19		
		1,958 33	
Rentals of leased railways		.....	
Payments to sinking and other special funds		.....	
Other deductions from income:		.....	
Total charges and deductions from income			7,567 01
Net divisible income			$20,476 16

Dividends declared.....per cent. on $.....	.....	
.....per cent. on	.....	
Total dividends declared.....		.....
Deficit for the year ending December 31, 1923.....		$20,476 16
Amount of deficit, December 31, 1922.....		27,447 99
Credits to profit and loss account during the year.....	.....	
Total credits.....	.....	
Debits to profit and loss account during the year:		
Reserve for Depreciation.....	$5,122 26	
Total debits.....	.....	
Net amount credited to profit and loss.....		5,122 26
Total deficit, December 31, 1923.....		$53,046 41

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried.....	$42,905 82
" carriage of mails.....	193 39
" carriage of express and parcels.....	419 71
" carriage of freight.....	26 35
" tolls for use of tracks by other companies.....	2,562 71
" rentals of buildings and other property.....	1,436 23
" advertising in cars.....	100 00
" interest on deposits.....	.....
Other earnings from operation:	
Chartered cars.....	380 50
T.H. & B. Ry, half cost of maintenance of track used by them.....	6,189 99
Gross earnings from operation.....	.....
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants.....	$4,078 87
General office expenses and supplies.....	258 47
Legal expenses.....	1,877 64
Insurance.....	170 21
Switching charges, if any.....	.....
Other general expenses:	
Advertising.....	12 54
Incidental.....	121 45
Maintenance of roadbed and buildings:	
Repair of roadbed and track.....	12,012 36
Repair of electric line construction.....	2,254 07
Repair of buildings.....	61 49
Maintenance of equipment:	
Repair of cars.....	700 96
Repair of electric equipment of cars.....	490 22
Repair of miscellaneous equipment.....	.....
Provender and stabling.....	40 00
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	8,425 30
Wages and compensation of persons employed in conducting transportation.....	19,954 78
Removal of snow and ice.....	570 66
Damages for injuries to persons and property.....	985 34
Tolls for trackage over other railways.....	.....
Rentals of buildings and other property.....	13,054 44
Other transportation expenses:	
Supplies on cars.....	1,494 70
Heating and incidental.....	560 35
Total operating expenses.....	$67,123 85

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length....feet)	$104 08	
New electric line construction (length.....feet)	16 12	
Other additions to railway	.....	
Total additions to railway		$120 20
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in value and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		$120 20

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$223,539 82

Cash and current assets:		
Cash	.....	
Bills and accounts receivable	$3,288 62	
Sinking and other special funds	.....	
Other cash and current assets: Fire insurance	106 00	
Total cash and current assets		$3,394 62
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—deficit		53,046 41
Total		$279,980 85
Liabilities:		
Capital stock, common		$100,000 00
Capital stock, preferred		.....
Total capital stock		$100,000 00
Funded debt		100,000 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	$25,270 23	
Audited vouchers and accounts	30 00	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Maintenance and renewal reserve	18,551 15	
Accident insurance reserve	536 49	
Total current liabilities		44,387 87
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Reserve for depreciation, years 1917 to 1923 inclusive	$35,592 98	
Total sinking and other special funds		35,592 98
Profit and loss balance—surplus		.....
Total		$279,980 85

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital Stock:	
Capital stock authorized by law, common	$100,000 00
Capital stock authorized by law, preferred	.....
Total capital stock authorized by law	$100,000 00
Capital stock authorized by votes of company, common	$100,000 00
Capital stock authorized by votes of company, preferred	.....
Total capital stock authorized by vote	$100,000 00

Capital stock issued and outstanding, common	$100,000 00
Capital stock issued and outstanding, preferred	.....
Total capital stock outstanding	$100,000 00
Amount paid in on.....shares not yet issued	.....
Amount paid in on stock to be exchanged	.....
Scrip convertible into stock	.....
Other paid stock liability	.....
Total capital stock liability	$100,000 00

Number of shares issued and outstanding, common	1,000	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	1,000	
Number of stockholders, common	8	
Number of stockholders, preferred	.....	
Total number of stockholders	8	
Amount of stock held, common		.....
Amount of stock held, preferred		.....
Total stock held		.....

Real Estate Mortgages.

Description of mortgaged property.	Rate of interest.	Mortgage when due.	Amount.	Interest paid during the year.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, etc.	Rate of interest.	Day of maturity.	Amount outstanding.	Interest paid during the year.
First Mortgage Bonds	5	.....	$100,000 00	$5,000 00
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	$100,000 00	$5,000 00

Sinking and Other Special Funds.

Amount December 31, 1922, of maintenance and renewal fund	$27,591 69
of accident insurance fund	623 23
Total, December 31, 1921	$28,214 92

Additions during the year to.....fund.....		
to.....fund.....		.....
Total including additions.....		.....
Deductions during the year from accident insurance fund.....	$86 74	
from maintenance and renewal fund.....	9,040 54	$9,127 28
Total sinking and other special funds, December 31, 1922.....		$19,087 64

VOLUME OF TRAFFIC—EQUIPMENT, ETC.

Volume of Traffic, Etc.:	
Number of passengers paying revenue carried during the year.....	694,081
Number carried per mile of main railway track operated.....	90,848
Number of car miles run.....	143,790
Average number of persons employed.....	31
If the Company commenced operation during the year, give the date.....	
Average amount received from each passenger.....	7.8 cents
Amount of passenger earnings per mile of road.....	$7,550 79
Freight:	
Number of tons freight earning revenue.....	3
Number of tons freight carried per mile of road	.42
Average amount received for each ton of freight.....	$8.78
Average receipts per ton of freight per mile.....	1.00
Average rate of speed of passenger cars per hour.....	12 miles
Average rate of speed of freight cars per hour.....	.....

Description of Equipment.	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with Fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars.....	....	....	....	....	....	....	....	..	..	....	..	..	....	....	....	....
Open passenger cars....	....	....	....	....	....	....	....	..	..	....	..	..	....	....	....	....

MISCELLANEOUS EQUIPMENT.

	Total number
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock.....	
Other highway vehicles.....	
Horses.....	
Other items of equipment.....	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER.)

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned leased, etc.	Total operated
Length of railway line.....	5.848	.....	1.132	6.98	6.98
Length of second main track.....	.2	.....	.....	.2	.2
Total length of main track.....	6.048	.....	.....	7.18	7.18
Length of sidings, switches, etc.....	1.6	.....	.....	1.6	1.6
Total, computed as single track	7.648	.....	.....	8.78	8.78
Length of line under construction.....	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No Ties to mile	General remarks
Steel	Iron	Steel	Iron		
.....	.....	65	.....	2,460	.....

Names of the several cities and towns in which the railways operated by the Company are located: Hamilton and Dundas.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:				
With T.H. & B. Ry., James & Humber	.....	D.R. gates	2	2
No. junctions with other railways	3	.....	.....	.....
No. of overhead bridges	1	.....	.....	.....
No. of highway crossings	.....	.....	.....	.....
No. of overhead bridges above rail level	15	.....	.....	.....
Radius of sharpest curve	40	.....	.....	.....
No. of feet per mile of heaviest gradient	7%	.....	.....	.....
Gauge of railway	4 ft. 8½ in.	.....	.....	.....
Width of devil strip	5 ft.	.....	.....	.....
Total number of tracks at crossings			.....	.....

Number of above crossings at which trogs are inserted in the tracks.....

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		1				1
Employees		3				3
Other persons						
Totals		4				4

STATEMENT OF EACH ACCIDENT.

.....
.....
.....

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors	9	10	$3 80	$4 20	$4 80
Motormen	9	10	3 80	4 20	4 80
Starters					
Roadmen	10		4 50		
Linemen	1		6 00		
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics	4		5 25		
Car Cleaners	1		4 25		
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

Corporate Organization.

Corporate name and address of the Company: The Hamilton & Dundas Street Railway Company, Hamilton, Ont.

Names and business addresses of principal officers: President, John Dickenson, Hamilton; Vice-President, James Dixon, Hamilton; Treasurer, James Dixon, Hamilton; Clerk of Corporation, Geo. D. Fearman, Hamilton; General Counsel, Gibson, Levy, Scott & Inch, Hamilton; Auditor, C. S. Scott, F.C.A.; General Manager, E. P. Coleman; Superintendent, Geo. E. Waller.

Name of Officer, and address, to whom correspondence regarding this report should be addressed: E. P. Coleman, General Manager, Hamilton.

Names and residence of Board of Directors: J. R. Moodie, Hamilton, Ont.; James Dixon, Hamilton, Ont.; W. C. Hawkins, Hamilton, Ont.; John Dickenson, Hamilton, Ont.; W. E. Phin, Hamilton, Ont.; F. R. Mackelcan, Toronto; J. W. MacDonald, Toronto.

ANNUAL REPORT OF THE

HAMILTON, GRIMSBY & BEAMSVILLE RAILWAY COMPANY.

For the Year Ending December 31, 1923.

General Information:

Names of Municipalities in which railway operates: Hamilton, Grimsby and Beamsville.
Name of Company: Hamilton, Grimsby and Beamsville Railway Company, Limited.
Date of incorporation: Ontario, 1892, chapter 95, April 14th; 1897, chapter 97; 1901, chapter 80; 1907, chapter 99.
Dates of subsequent legislation: By-law 180, Beamsville, 1926; By-law 238, Beamsville, 1926; By-law 687, Beamsville, 1913; By-law 108, Beamsville, 1916; By-law 1145, Clinton, 1926; By-law 345, Lincoln, perpetual; By-law 338, Barton, perpetual; By-law 395, Saltfleet, perpetual.
Date of expiry of franchise:
Amount paid to Municipality per year per mile of track: Lincoln, $50.00; Hamilton, $300.00.
Further amounts, if any, paid to Municipality by way of percentage earnings: None.

Total amount paid to Municipality during year for franchise	$837 87
Appraised value of plant and tracks for purposes of taxation	114,685 00
Total taxes paid during year to Municipality	4,370 61
Amount of aid received from Municipality, if any	None
Power consumed per car mile in kilowatt hours	
Cost per horse power for motive power used in operating plant	
Cost of power per kilowatt per hour	
Cost of power per car mile	4.55 cents
Average speed of cars	15 miles

State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Water and steam.
Give number of power houses: Two substations.

General Exhibit:

Gross earnings from operation		$175,835 26
Operating expenses		203,214 20
Net deficit from operation		$27,378 94
Miscellaneous income	.....	
Total miscellaneous income		.....
Gross income above operating expenses		$27,378 94
Charges upon income accrued during the year:		
Interest on funded debt	$7,500 00	
Interest and discount on unfunded debts and loans	14,147 98	
Taxes, Municipal	$4,370 61	
Taxes, Provincial	245 90	
Taxes, Commutation	837 87	
	5,454 38	

Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		$27,102 36
Net divisible income		$54,481 30
Dividends declared .....per cent. on $.....		
.....per cent. on		
Total dividends declared		.....
Deficit for the year ending December 31, 1923		$54,481 30
Amount of deficit, December 31, 1922		223,322 37
Credits to profit and loss account during the year	.....	
Total credits	.....	
Debits to profit and loss account during the year:		
Reserve for depreciation	$19,516 64	
Total debits	.....	
Net amount credited to profit and loss		19,516 64
Total surplus or deficit, December 31, 1923		$297,320 31

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried	$128,661 81
" carriage of mails	749 04
" carriage of express and parcels	5,115 94
" carriage of freight	26,930 32
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	12,955 51
" advertising in cars	350 00
" interest on deposits	.....
Other earnings from operation: Chartered cars	1,072 64
Gross earnings from operation	$175,835 26
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	$12,844 50
General office expenses and supplies	1,756 58
Legal expenses	274 52
Insurance	950 50
Switching charges, if any	.....
Other general expenses:	
Advertising	36 91
Incidental	434 19
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	28,399 49
Repair of electric line construction	6,883 64
Repair of buildings	921 25
Maintenance of Equipment:	
Repair of cars	15,484 10
Repair of electric equipment of cars	8,980 80
Repair of miscellaneous equipment	694 87
Provender and stabling	576 89

Transportation Expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net....	$ 30,088 05
Wages and compensation of persons employed in conducting transportation	56,461 50
Removal of snow and ice	1,906 73
Damages for injuries to persons and property	4,813 69
Tolls for trackage over other railways	.....
Rentals of buildings and other property	26,258 00
Other transportation expenses:	
Supplies on cars	3,828 38
Heating and incidental	1,619 61
Total operating expenses	$203,214 20

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		

Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$499,148 81
Cash and current assets:		
Cash	.....	
Bills and accounts receivable	$5,937 79	
Sinking and other special funds	.....	
Other cash and current assets: Fire insurance	567 00	
Total cash and current assets		6,504 79
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—Deficit		297,320 31
Total		$802,973 91
Liabilities:		
Capital stock, common		$235,000 00
Capital stock, preferred		.....
Total capital stock		$235,000 00
Funded debt		150,000 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	$245,397 18	
Audited vouchers and accounts	335 68	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	12 50	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Maintenance and Renewal Fund	31,541 02	
Accident Insurance Reserve	3,366 45	
Total current liabilities		280,652 83
Accrued liabilities:		
Interest accrued and not yet due	$1,250 00	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		1,250 00
Sinking and other special funds:		
Reserve for depreciation	$136,071 08	
Total sinking and other special funds		136,071 08
Profit and loss balance—Surplus		.....
Total		$802,973 91

Capital Stock—Real Estate Mortgages.

Capital stock:		
Capital stock authorized by law, common	$235,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$235,000 00	
Capital stock authorized by votes of company, common	$235,000 00	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	$235,000 00	
Capital stock issued and outstanding, common		$235,000 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$235,000 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$235,000 00
Number of shares issued and outstanding, common	2,350	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	2,350	
Number of stockholders, common	8	
Number of stockholders, preferred	.....	
Total number of stockholders	8	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

Funded Debt—Sinking and Other Special Funds.

Funded Debt—Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
First Mortgage Bonds	5	May 1, 1933	$150,000 00	$7,500 00
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	$150,000 00	$7,500 00

Sinking and Other Special Funds

Amount, December 31, 1922, of maintenance and renewal fund	$37,843 10
of accident insurance fund	1,712 21
Total, December 31, 1923	$39,555 31
Additions during the year to.....fund	.....
accident insurance fund	1,654 24
Total, including additions	$41,209 55
Deductions during the year from Maintenance and Renewal fund	6,302 08
from.....fund	.....
Total sinking and other special funds, December 31, 1923	$34,907 47

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	987,297
Number carried per mile of main railway track operated	37,683
Number of car miles run	376,730
Average number of persons employed	75
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	13.03 cts.
Amount of passenger earnings per mile of road	5,693 00
Freight:	
Number of tons freight earning revenue	68,879
Number of tons freight carried per mile of road	2,629
Average amount received for each ton of freight	39 cts.
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	15 miles
Average rate of speed of freight cars per hour	15 miles

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow Plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with Electric heaters
Box passenger cars	8	...	...	....	4	....	..	...	...	...	...	...	...	12	4	8
Open passenger cars	2	...	...	....	....	....	..	...	...	...	...	...	...	2	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power.)

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned leased, etc.	Total operated
Length of railway line	22.6	.....	.....	22.6	22.6
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	22.6	.....	.....	22.6	22.6
Length of sidings, switches, etc	3.6	.....	.....	3.6	3.6
Total, computed as single track	26.2	.....	.....	26.2	26.2
Length of line under construction	.....	.....	.....	.....	.....

Description of Freight Carried—For Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Description of Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General Remarks
Steel	Iron	Steel	Iron		
.....	.....	56	.....	2,540	.....
.....	.....	65	.....	2,540	.....
.....	.....	84	.....	528	Steel ties in concrete.

Names of the several cities and towns in which the railways operated by the Company are located: Hamilton, Grimsby and Beamsville.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:				
With T. H. & B. Ry., Maple Ave		D.R.	1	1
With G.T.R., Main and Ferguson		D.R. Watchman	1	1
No. junctions with other railways	2			
No. of overhead bridges				
No. of highway crossings				
Height of overhead bridges above rail level				
Radius of sharpest curve	45			
No. of feet per mile of heaviest gradient				
Gauge of railway	4 ft. 8 in.			
Width of devil strip				
Total number of tracks at crossings			2	2

Number of above crossings at which frogs are inserted in the tracks..... 2

GENERAL REMARKS AND EXPLANATIONS.

.....
.....
.....

SUMMARY OF ACCIDENTS TO PROPERTY

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property		3				
Damage to property of Municipality						
Damage to private property		6				
Total		9				

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injury
Passengers		8				8
Employees		4				4
Other persons						
Totals		12				12

STATEMENT OF EACH ACCIDENT.

.....
.....
.....

WAGES STREET RAILWAY COMPANY'S OR RADIAL RAILWAYS.

	No. employed.	Average No. of hours on duty per day.	Wages per day.		
			1st year.	2nd year.	3rd year.
Inspectors	.....	.....	.....	.....	.....
Conductors	15	10	$3 80	$4 20	$4 80
Motormen	15	.....	.....	.....	.....
Starters	.....	.....	.....	.....	.....
Roadmen	12	.....	4 50	.....	.....
Linemen	2	.....	6 00	.....	.....
Engineers—sub-station men	7	8	4 00	.....	.....
Blacksmiths	2	10	5 15	.....	.....
Firemen	.....	.....	.....	.....	.....
Electricians	2	10	5 80	.....	.....
Armature winders	1	.....	5 80	.....	.....
Machinists and mechanics	7	.....	5 25	.....	.....
Car cleaners	2	.....	4 25	.....	.....
Average number of employees	66	.....	.....	.....	.....
Watchmen	1	.....	4 90	.....	.....
Switchmen and crossing tenders	.....	.....	.....	.....	.....

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Hamilton, Grimsby and Beamsville Railway Company, Limited.

Names and business address of principal officers: President, Wm. C. Hawkins, Hamilton; Vice-President, John Dickenson, Hamilton; Treasurer, James Dixon, Hamilton; Clerk of Corporation, Geo. D. Fearman, Hamilton; General Counsel, Gibson, Levy, Scott & Inch, Hamilton; Auditor, C. S. Scott, F.C.A.; General Manager, E. P. Coleman; Superintendent, Geo. E. Waller.

Name of officer, and address, to whom correspondence regarding this report should be addressed: E. P. Coleman, General Manager, Hamilton.

Names and residence of Board of Directors: J. R. Moodie, Hamilton; James Dixon, Hamilton; Wm. C. Hawkins, Hamilton; John Dickenson, Hamilton; W. E. Phin, Hamilton; Sir John M. Gibson, Hamilton; Robert Hobson, Hamilton.

ANNUAL REPORT OF THE

HUNTSVILLE AND LAKE OF BAYS RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Franklin Township, District of Muskoka.
Name of Company: The Huntsville and Lake of Bays Railway Company.
Date of Incorporation: April 30th, 1900.
Dates of subsequent legislation: May 22nd, 1903, and April 9th, 1907.
Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track.....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings % on $.....
Total amount paid Municipality during year for franchise.....
Appraised value of plant and tracks for purposes of taxation..... $4,800 00
Total taxes paid during year to Municipality..... 50 00
Amount of aid received from Municipality if, any.....
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....

Cost of power per car mile			
Average speed of cars: About 8 miles.			
State if power is purchased or generated by Company: By Company.			
State if power is generated by steam or water power: Steam.			
Give number of power houses: Two engines—(small locomotives).			
General Exhibit:			
Gross earnings from operation			$9,429 05
Operating expenses			4,261 28
Net earnings from operation			$5,167 77
Miscellaneous income		.....	
Total miscellaneous income			.....
Gross income above operating expenses			$5,167 77
Charges upon income accrued during the year:			
Interest on funded debt		.....	
Interest and discount on unfunded debts and loans		.....	
Taxes, Municipal	$50 00		
Taxes, Provincial	.....		
Taxes, Commutation	.....	$50 00	
Rentals of leased railways	.....		
Payments to sinking and other special funds	.....		
Other deductions from income	.....		
Total charges and deductions from income			$50 00
Net divisible income			$5,117 77
Dividends declared interest 8% per cent. on $27,800 00		$2,224 00	
.....per cent. on		.....	
Total dividends declared			2,224 00
Surplus for the year ending December 31, 1923			$2,893 77
Amount of surplus, December 31, 1922			614 50
Credits to profit and loss account during the year:			
Balance at Dec. 31st, 1922		$614 50	
Balance at Dec. 31st, 1923		2,893 77	
Total credits		$3,508 27	
Debits to profit and loss account during the year:			
Income tax 1922, paid in 1923	$28 25		
Income tax reserve for 1923 tax	193 05		
Depreciation reserve	1,187 25		
Surplus and reserve	2,099 72		
Total debits	.....	$3,508 27	
Net amount credited to profit and loss			.....
Total surplus or deficit, December 31, 1922			.....

EARNINGS AND EXPENSES OF OPERATION.

Earnings from Operation:		
Receipts from passengers carried		$2,433 55
" carriage of mails		35 00
" carriage of express and parcels / " carriage of freight		4,806 80
" tolls for use of tracks by other companies		.....
" rentals of buildings and other property		.....
" advertising in cars		110 00
" interest on deposits		.....
Other earnings from operation: Lumber transfer (826,179 ft.)		2,043 70
Gross earnings from operation		$9,429 05

Expenses of Operation:		
General Expenses:		
Salaries of general officers and clerks and attendants		.....
General office expenses and supplies		.....
Legal expenses		.....
Insurance		231 23
Switching charges, if any		.....
Other general expenses: Water service		5 00
Boiler inspection		15 00
Maintenance of roadbed and buildings:		
Repair of roadbed and track		200 00
Repair of electric line construction		.....
Repair of buildings		.....
Maintenance of equipment:		
Repair of cars, Repair of equipment of cars, Repair of miscellaneous equipment, Provender and stabling		521 74
Transportation expenses:		
Cost of electric motive power, $.....; less power sold, $.....; net		.....
Wages and compensation of persons employed in conducting transportation		2,297 95
Removal of snow and ice		.....
Damages for injuries to persons and property		.....
Tolls for trackage over other railways		.....
Rentals of buildings and other property		.....
Other transportation expenses: Fuel—coal		930 36
Oil, grease and water		60 00
Total operating expenses		$4,261 28

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (one in number) (open)	$977 53	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		$977 53
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year 1923		$977 53

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	$15,045 89	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	2,325 43	
Engineering and other expenses incident to construction	2,814 16	
Other items of railway cost	.....	
Total cost of railway owned		$20,185 38
Cost of equipment:		
Passenger cars and other rolling stock	$8,655 87	
Electric equipment of same	.....	
Other items of equipment: One 10-ton loading crane	1,760 71	
One steam water pump	165 00	
Total cost of equipment owned		10,581 58
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		390 73
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		.....
Cash and current assets:		
Cash	.....	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
The H. & L. of B. & L. S. Nav. Co., owners of capital stock, $76,800.00, hold all funds	$3,970 00	
Total cash and current assets		$3,970 00
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—deficit		.....
Total		$35,127 69
Liabilities:		
Capital stock, common		$27,800 00
Capital stock, preferred		.....
Total capital stock		$27,800 00
Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
The H. & L. of B. & L. S. Nav. Co. current account 1922 for 2 open cars purchased in 1922 and 1923	$1,847 67	
Total current liabilities		1,847 67

Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Income war tax—reserve for 1923 tax	$193 05	
Depreciation (general) reserve	3,187 25	
Surplus and reserve	2,099 72	
Total sinking and other special funds		5,480 02
Profit and loss balance—surplus		.....
Total		$35,127 69

Capital Stock—Real Estate Mortgages.

Capital Stock:		
Capital stock authorized by law, common	$50,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$50,000 00	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		$27,800 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$27,800 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....

Number of shares issued and outstanding, common	278	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	278	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	6	
Amount of stock held, common	$27,800 00	
Amount of stock held, preferred	.....	
Total stock held	$27,800 00	

Real Estate Mortgages.

Description of mortgaged property.	Rate of interest.	Mortgage when due.	Amount.	Interest paid during the year.
No mortgaged property				
Totals				

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, Etc.	Rate of interest.	Day of maturity.	Amount outstanding.	Interest paid during the year.
Totals				

Sinking and Other Special Funds.

Amount December 31, 1922, of.....fund		.....
of depreciation reserve fund		$2,000 00
Total, December 31, 1922		$2,000 00
Additions during the year to depreciation reserve fund	$1,187 25	
to surplus and reserve fund	2,099 72	
to income tax reserve fund	193 05	
		3,480 02
Total including additions		$5,480 02
Deductions during the year from.....fund	.....	
from.....fund		.....
Total sinking and other special funds, December 31, 1923		$5,480 02

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.:	
Number of passengers paying revenue carried during the year	16,238
Number carried per mile of main railway track operated	16,238
Number of car miles run	.....
Average number of persons employed	0.6
If the Company commenced operation during the year, give the date: May 7th to November 21st.	
Average amount received from each passenger	14.98 cts.
Amount of passenger earnings per mile of road	$1,391 00
Freight:	
Number of tons freight earning revenue	est. 5,700
Number of tons freight carried per mile of road	5,700
Average amount received for each ton of freight	120.18
Average receipts per ton of freight per mile	68.56
Average rate of speed of passenger cars per hour	about 8 miles
Average rate of speed of freight cars per hour	4 miles

Description of equipment.	No. of motor cars.	Cars.	Official cars.	Electric locomotives.	Baggage and mail express cars.	Cattle and box cars.	Refrigerator cars.	Platform cars freight.	Coal and dump cars.	Conductors' vans.	Tool cars.	Snow plows.	Snow sweepers.	Equipped with Fenders.	Equipped with stoves.	Equipped with electric heaters.
Box passenger cars	....	2	..	....	2	....	....	5	....	..	..	..	....	....	....	....
Open passenger cars	....	3		....	....	....	....	....	....	..	..	..	....	....	....	....

Miscellaneous Equipment.

	Total Number
Barges and omnibuses	None
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	

Other items of equipment: One 10-ton loading crane (equipped with car wheels)..

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Steam Power).

Railway owned, etc.	Owned.	Held under lease or contract.	Trackage over other railways.	Total owned, leased, etc.	Total operated.
Length of railway line	1 7/16 miles	.....	.....	.....	.....
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	1 7/16 miles	.....	.....	.....	.....
Length of sidings, switches, etc.	5/16 miles	.....	.....	.....	.....
Total, computed as single track	1 3/4 miles	.....	.....	.....	.....
Length of line under construction	None	.....	.....	.....	.....

Description of Freight Carried for Year Ending December 31, 1923.

Flour.		Grain.		Live Stock		Lumber.		Fuel		All other articles.	Total tonnage.	Remarks
Bbls.	Tons.	Bush	Tons	No.	Tons	Ft., B.M	Tons	Cords.	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	Bark	.....	.....	.....	All tonnage estimated, not weighed by the Company.
.....	.....	.....	.....	.....	.....	826,179′	1,700	.....	.....	4,000	5,700	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note—All freight, lumber, bark, etc., handled by Company to and from off scows and boats.

DESCRIPTION ROAD BED, ETC.

Rails.		Weight per yard.		No. ties to mile.	General Remarks.
Steel.	Iron.	Steel.	Iron.		
1¾	.....	90 lbs.	.....	Est. 1,800	Operated only during the season of open navigation in each year from about May 1st to November 20th.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: Village of Portage, Ont., in the unorganized Township of Franklin and District of Muskoka, between Peninsular Lake and Lake of Bays.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads.	Unprotected.	How protected.	Number of tracks at crossing.	
			Railroad tracks.	Railway tracks.
Crossings of railway with railroads at grade (.....in number), viz:—				
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
With.....	.....	.....	.....	.....
No. junctions with other railways...	None	.....	.....	.....
No. of overhead bridges.....	None	.....	.....	.....
No. of highway crossings.....	3	.....	.....	.....
Height of overhead bridges above rail level.....	.....	.....	.....	.....
Radius of sharpest curve.....	.....	.....	.....	.....
No. of feet per mile of heaviest gradient.....	.....	.....	.....	.....
Gauge of railway.....	4 4½"	.....	.....	.....
Width of devil strip.....	.....	.....	.....	.....
Total number of tracks at crossings.....			2	.....

Number of above crossings at which frogs are inserted in the tracks.....

GENERAL REMARKS AND EXPLANATIONS.

Operated along public highway for the greater part of length of railway, i.e., between points commonly known as North Portage and South Portage.

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents: Nil.

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees				1		1
Other persons						
Totals				1		1

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics					
Car cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

Corporate Organization.

Corporate name and address of the Company: The Huntsville and Lake of Bays Railway Company, Huntsville, Ont.

Names and business address of principal officers: President, Chas. O. Shaw, Huntsville, Ont.; Vice-President, Chas. G. Shaw, Huntsville, Ont.; Treasurer, John W. McKee, Huntsville, Ont.; General Counsel, Thomas Johnson, Bracebridge, Ont.; Auditor, Ed. S. Rombough, Bracebridge, Ont.; General Manager, Wm. J. Moore, Huntsville, Ont.; Superintendent, Joseph St. Amand, Portage.

Name of officer, and address, to whom correspondence regarding this report should be addressed: Wm. J. Moore, General Manager and Secretary, Huntsville, Ont.

Names of Board of Directors: Charles O. Shaw, Charles G. Shaw, John W. McKee, William J. Moore, Charles W. Conway.

ANNUAL REPORT OF THE

INTERNATIONAL TRANSIT COMPANY

For the Year Ending December 31, 1923.

General Information:

Name of Municipality in which railway operates: Sault Ste. Marie, Ont.
Name of Company: The International Transit Company.
Date of Incorporation: May 22, 1888.
Date of subsequent legislation: August 22, 1902.
Date of expiry of franchise: July 1, 1926.
Amount paid to Municipality per year per mile of track: None.
Further amounts, if any, paid to Municipality, by way of percentage earnings: None.
Total amount paid Municipality during year for franchise: None.
Appraised value of plant and tracks for purposes of taxation: Specific tax under Lake Superior Corp.
Total taxes paid during year to Municipality: $1,043.27.
Amount of aid received from Municipality, if any: None.
Power consumed per car mile in kilowatt hours: No record.
Cost per horse power for motive power used in operating plant: $22.00 per H.P. per annum.
Cost of power per kilowatt per hour: About .112 cents.
Cost of power per car mile: 4.35 cents.
Average speed of cars: 10 miles per hour.
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Water power.
Give number of power houses: One.

General Exhibit:

Gross earnings from operation:		
Ferry	$49,240 83	
Railway	66,501 64	
		$115,742 47
Operating expenses:		
Ferry	$32,036 86	
Railway	42,274 16	
		74,311 02
Net earnings from operation		$41,431 45
Miscellaneous income:		
Interest, etc.	$138 84	
Total miscellaneous income		138 84
Gross income above operating expenses		$41,570 29
Charges upon income accrued during the year:		
Interest on funded debt	$2,125 00	
Interest and discount on unfunded debts and loans	9,502 14	
Taxes, Municipal $1,043 27		
Taxes, Provincial		
Taxes, Commutation		
	1,043 27	

Rentals of leased railways	.....	
Payments to sinking and other special funds:		
Depreciation	$20,000 00	
Other deductions from income:		
Inventory adjustments	368 02	
Total charges and deductions from income		$33,038 43
Net divisible deficit		$8,531 86
Dividends declared.....per cent. on $	.....	
.....per cent. on	.....	
Total dividends declared		.....
Surplus for the year ending December 31, 1923		$8,531 86
Amount of surplus, December 31, 1922		68,173 08
		$76,704 94
Credits to profit and loss account during the year:	.....	
Total credits	.....	
Debits to profit and loss account during the year	.....	
Reserve for Corp. Income Tax $685 85	.....	
Total debits	$685 85	
Net amount credited to profit and loss		685 85
Total surplus, December 31, 1922		$76,019 09

Earnings and Expenses of Operation.

Earnings from operation:-	
Receipts from passengers carried	$65,354 30
" carriage of mails	400 00
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	.....
" advertising in cars	390 00
" interest on deposits	.....
Other earnings from operation: Station and car privileges	357 34
Gross earnings from operation	.....
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$2,371 20
General office expenses and supplies	617 96
Legal expenses	828 30
Insurance	2,915 79
Switching charges, if any	.....
Other general expenses	.....
Maintenance of roadbed and buildings:	
Repair of roadbed and track	2,816 95
Repair of electric line construction	649 47
Repair of buildings	.....
Maintenance of equipment:	
Repair of cars	3,098 22
Repair of electric equipment of cars	1,233 98
Repair of miscellaneous equipment	1,340 25
Provender and stabling: Superintendence	.....

Transportation expenses:		
Cost of electric motive power, $8,820.00; less power sold, $.....; net.		$8,820 00
Wages and compensation of persons employed in conducting transportation		13,321 93
Removal of snow and ice		.....
Damages for injuries to persons and property		.....
Tolls for trackage over other railways		.....
Rentals of buildings and other property		.....
Other transportation expenses		.....
Carhouse expense		4,260 11
Total operating expenses		$42,274 16

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length,....feet)	.....	
New electric line construction (length,....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment: Fare box	$62 70	
Rotary convertor and motor generator set	24,000 00	
Total additions to equipment		$24,062 70
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings	.....	
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		$24,062 70
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):	.....	
Sale of two old car bodies	$125 00	
Total deductions from property accounts		125 00
Net addition to property accounts for the year		$23,937 70

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	$169,636 99	
Electric line construction, including poles, wiring, feeder lines, etc.	28,784 68	
Interest accrued during construction of railway	5,450 28	
Engineering and other expenses incident to construction	3,543 52	
Other items of railway cost: Miscellaneous	10,543 82	
Total cost of railway owned		$217,959 29
Cost of equipment:		
Passenger car and other rolling stock	$76,321 48	
Electric equipment of same	24,055 05	
Other items of equipment	3,717 98 24,000 00	
Total cost of equipment owned		128,094 51

Cost of land and buildings:		
Land necessary for operation of railway Electric power stations, including equipment, other buildings necessary for operation of railway	$26,086 76	
Total cost of land and buildings owned		$26,086 76
Other permanent property:		
Rights, contracts	$84,013 94	
Ferry boat and other equipment	113,573 24	
Total cost of other permanent property owned		197,587 18
Total permanent investments		$569,727 74
Cash and current assets:		
Cash	$8,709 95	
Bills and accounts receivable	866 37	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Prepaid and open accounts	2,477 29	
Total cash and current assets		12,053 61
Miscellaneous assets:		
Materials and supplies	$6,876 13	
Other assets and property	.....	
Total miscellaneous assets		6,876 13
Profit and Loss Balance—Deficit		.....
Total		$588,657 48
Liabilities:		
Capital stock, common		$150,000 00
Capital stock, preferred		.....
Total capital stock		$150,000 00
Funded debt		32,500 00
Real estate mortgages		.....
Liability for equipment in trust		18,134 39
Current liabilities:		
Loans and notes payable	$139,500 00	
Audited vouchers and accounts	6,491 13	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities: U.S. Alien Fund	4,096 00	
Advance billing—Outstanding tickets, etc	292 37	
Total current liabilities		150,379 50
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	$685 85	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Accrued interest	.....	
Total accrued liabilities		685 85
Sinking and other special funds:		
Reserve for depreciation	$145,379 90	
Reserve for public liability	15,558 75	
Total sinking and other special funds		160,938 65
Profit and loss balance—Surplus		76,019 09
Total		$588,657 48

Capital Stock—Real Estate Mortgages.

Capital Stock:		
Capital stock authorized by law, common	$150,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$150,000 00	
Capital stock authorized by votes of company, common	150,000 00	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	$150,000 00	
Capital stock issued and outstanding, common	150,000 00	
Capital stock issued and outstanding, preferred	.....	
Total capital stock outstanding		$150,000 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$150,000 00
Number of shares issued and outstanding, common	3,000	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	3,000	
Number of stockholders, common	8	
Number of stockholders, preferred	.....	
Total number of shareholders	8	
Amount of stock held, common	$150,000 00	
Amount of stock held, preferred	.....	
Total stock held	$150,000 00	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

Funded Debt—Sinking and Other Special Funds.

Funded Debt—Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
First mortgage	5%	July 1, 1912, and $20,000 00 annually thereafter.	$32,500 00	$2,125 00
Totals	.....	.....	$32,500 00	$2,125 00

Sinking and Other Special Funds.

Amount, December 31, 1922, of depreciation fund		$126,499 08
of public liability fund		14,355 08
Total, December 31, 1922		$140,854 16
Additions during the year to depreciation fund	$20,000 00	
to public liability fund	1,331 08	
		21,331 08
Total, including additions		$162,185 24
Deductions during the year from depreciation fund	$1,119 18	
from public liability fund	127 41	
		1,246 59
Total sinking and other special funds, June 30, 1921		$160,938 65

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:

Number of passengers paying revenue carried during the year	1,327,690
Number carried per mile of main railway track operated	5.70
Number of car miles run	232,923
Average number of persons employed (in street railway operation)	18
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	.05
Amount of passenger earnings per mile of road	22,167 21

Freight:

Number of tons freight earning revenue	None
Number of tons freight carried per mile of road	"
Average amount received for each ton of freight	"
Average receipts per ton of freight per mile	"
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with Stoves	Equipped with electric heaters
Box passenger cars	14	3	...	...	...	...	...	...	...	...	...	...	1	14	1	14
Open passenger cars	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock: Trolley wagon	1
Other highway vehicles	
Horses	

Other items of equipment:

Ferry boat but not used in connection with street railway operation.

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	3.80				3.33
Length of second main track	1.17				1.17
Total length of main track	4.97				4.50
Length of sidings, switches, etc.	.09				.09
Total, computed as single track	5.06				4.59
Length of line under construction					

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			

Description of Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
		80			13,700 ft. on 6 in. concrete base; balance on rock or cinder ballast.

Names of the several cities and towns in which the railways operated by the Company are located: Sault Ste. Marie, Ont.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With C.P.R.	.....	Interlocker	Steam 1	Electric 1
No. junctions with other railways	.....	1	.....	.....
*No. of overhead bridges	.....	1	.....	.....
No. of highway crossings	.....	.....	.....	.....
Height of overhead bridges above rail level	.....	22 ft. 6 in.	.....	.....
Radius of sharpest curve	.....	50 ft.	.....	.....
No. of feet per mile of heaviest gradient, 5% grade on approach to overhead bridge.				
Gauge of railway	.....	4 ft. 8½ in.	.....	.....
Width of devil strip	.....	5 ft. 3 in.	.....	.....
Total number of tracks at crossings			1	1
Number of above crossings at which frogs are inserted in the tracks			None	

GENERAL REMARKS AND EXPLANATIONS.

*Street railway track crosses A. C. and H. B. Ry. Co. tracks on overhead bridge and heaviest gradient in street railway track occurs on approach on either side of this bridge.

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	.....	.....	.....	.....	.....	.....
Damage to property of Municipality	.....	.....	.....	.....	.....	.....
Damage to private property	.....	.....	.....	.....	.....	1
Total	.....	.....	.....	.....	.....	1

Total amount paid during year for damages caused by accidents: $127.41.

ACCIDENTS TO PERSONS.

Killed or injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers	.....	.....	.....	.....	.....	.....
Employees	.....	.....	.....	.....	.....	.....
Other persons	.....	.....	.....	1	.....	1
Totals	.....	.....	.....	1	.....	1

STATEMENT OF EACH ACCIDENT.

.....
.....
.....

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Repairmen	2	10	40	42	45
Conductor-motorman (one-man car operators)	10	10	40	42	45
Starters	.....	.....	.....	.....	.....
Laborer	.....	.....	.....	.....	.....
Linemen	.....	.....	.....	.....	.....
Engineers	.....	.....	.....	.....	.....
Blacksmiths	.....	.....	.....	.....	.....
Firemen	.....	.....	.....	.....	.....
Electricians	.....	.....	.....	.....	.....
Armature winders	.....	.....	.....	.....	.....
Machinists and mechanics	.....	.....	.....	.....	.....
Car cleaners	.....	.....	.....	.....	.....
Average number of employees	.....	.....	.....	.....	.....
Watchmen	1	.....	36	36	36
Switchmen and crossing tenders	2	10	95	per mo.	

CORPORATE ORGANIZATION.

Corporate name and address of the Company: The International Transit Company, Sault Ste. Marie Ont.

Names and business address of principal officers: President, James O. Heyworth, Harvester Bay, Chicago, Ill.; 1st Vice-President, Martin J. Insull, Edison Bldg., Chicago, Ill.,; 2nd Vice-President, John A. McPhail, Sault Ste. Marie, Ont.; Treasurer, Oliver E. McCormick, Edison Bldg., Chicago, Ill.; General Counsel, John A. McPhail, Sault Ste. Marie, Ont.; Auditor, J. M. McNeil, Sault Ste. Marie, Ont.; General Manager, A. E. Pickering, Sault Ste. Marie, Ont.; Superintendent, James Summerhayes, Sault Ste. Marie, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: John M. McNeil, Auditor, Sault Ste. Marie, Ont.

Names and residence of Board of Directors: James O. Heyworth, Chicago; Martin J. Insull, Chicago; John A. McPhail, Sault Ste. Marie, Ont.; Samuel Insull, Chicago; Donald R. McLennon, Chicago; James L. Martin, Chicago; Stedman Buttrick, Boston, Mass.

ANNUAL REPORT OF THE

KINGSTON, PORTSMOUTH & CATARAQUI ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Kingston, Ontario.
Name of Company: Kingston, Portsmouth and Cataraqui Electric Railway Company.
Date of Incorporation: February 10th, 1876.
Dates of subsequent legislation: 39 Vic. 74.
1893, chap. 91.
1895, chap. 105.
1891 (1), chap. 61.
1904, chap. 79.
1906, chap. 11.

Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track: None.
Further amounts, if any, paid to Municipality by way of percentage earnings % on $: None.
Total amount paid Municipality during year for franchise: None.
Appraised value of plant and tracks for purposes of taxation..... $25,000 00
Total taxes paid during year to Municipality..... $1,064 27
Amount of aid received from Municipality, if any: Exemption from taxes on all property used exclusively for street railway purposes.
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour: 1⅕ cents.
Cost of power per car mile: 2 cents per mile approximately.
Average speed of cars: 9 miles per hour.
State if power is purchased or generated by Company: Purchased from the city.
State if power is generated by steam or water power: Steam.
Give number of power houses: One owned by the City of Kingston.

General Exhibit for the Year.

General Exhibit:		
Gross earnings from operation	$65,286 52	
Operating expenses	60,835 05	
Net earnings from operation		$4,451 47
Miscellaneous income:		
Bank interest	$21 98	
Interest on bonds	1,087 75	
Bank interest	2 25	
Dividends, C P. R.	220 00	
Total miscellaneous income		1,331 98
Gross income above operating expenses		$5,783 45
Charges upon income accrued during the year:		
Interest on funded debt	$4,000 00	
Interest and discount on unfunded debts and loans	.....	
Taxes, Municipal $941 21		
Taxes, Provincial 123 06		
Taxes, Commutation		
	1,064 27	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Reserve for damages	2,663 31	
Other deductions from income	.....	
Total charges and deductions from income		$7,727 58
Net divisible income		$1,944 13
Dividends declared.....per cent. on $	.....	
.....per cent. on $	.....	
Total dividends declared	.....	.....
Deficit for the year ending December 31, 1923		$1,944 13
Amount of surplus December 31, 1922		25,061 74
Credits to profit and loss account during the year	.....	
Total credits	.....	
Debits to profit and loss account during the year		
Total debits	.....	
Net amount credited to profit and loss		.....
Total surplus or deficit December 31, 1923		$23,117 61

Earnings and Expenses of Operation.

Earnings from Operation:		
Receipts from passengers carried		$63,423 02
" carriage of mails		.....
" carriage of express and parcels		.....
" carriage of freight		.....
" tolls for use of tracks by other companies		.....
" rentals of buildings and other property, rents		1,506 00
" advertising in cars		357 50
" interest on deposits		.....
Other earnings from operation		.....
Gross earnings from operation		$65,286 52
Expenses of Operation:		
General expenses:		
Salaries of general officers and clerks and attendants		$5,634 50
General office expenses and supplies		293 59
Legal expenses		97 94
Insurance		1,182 93
Switching charges, if any		.....
Other general expenses:		
Sundries	$1,277 71	
Water and light	147 25	
Real estate expenses	457 12	
Machine shop expenses	171 01	
Oil and grease	119 38	
Advertising	365 60	
Printing and stationery	729 81	
		3,267 93
Maintenance of roadbed and buildings:		
Repair of roadbed and track, ordinary repairs		4,449 24
Repair of electric line construction		537 50
Repair of buildings		447 82
Maintenance of equipment:		
Repair of cars, wages		10,178 40
Repair of electric equipment of cars		3,731 13
Repair of miscellaneous equipment		506 25
Provender and stabling		.....
Transportation expenses:		
Cost of electric motive power,.....; less power sold, $.....; net		$6,485 76
Wages and compensation of persons employed in conducting transportation, motormen and conductors		22,747 44
Removal of snow and ice		800 53
Damages for injuries to persons and property		474 09
Tolls for trackage over other railways, Lake Ontario Park		.....
Rentals of buildings and other property		.....
Other transportation expenses: Ontario Street track		.....
Total operating expenses		$60,835 05

Property Accounts—Additions and Deductions during the Year.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....

Additions to land and buildings:

Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

General Balance Sheet.

Assets:

Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		.....
Cash and current assets:		
Cash	.....	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		.....
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets	.....	
Profit and loss balance—deficit	.....	
Total		.....

Liabilities:		
Capital stock, common		$40,000 00
Capital stock, preferred		43,100 00
Total capital stock		$83,100 00
Funded debt		100,000 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	$580 76	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	435 00	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		1,015 76
Accrued liabilities:		
Interest accrued and not yet due	$2,000 00	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		2,000 00
Sinking and other special funds	.....	
Reserve for damages	.....	
Total sinking and other special funds		$16,378 77
Profit and loss balance—surplus		23,117 61
Total		$225,612 14

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital Stock:			
Capital stock authorized by law, common	.....		
Capital stock authorized by law, preferred	.....		
Total capital stock authorized by law	.....		
Capital stock authorized by votes of company, common	.....		
Capital stock authorized by votes of company, preferred	.....		
Total capital stock authorized by vote	.....		
Capital stock issued and outstanding, common			$40,000 00
Capital stock issued and outstanding, preferred			43,100 00
Total capital stock outstanding			$83,100 00
Amount paid in on.....shares not yet issued			.....
Amount paid in on stock to be exchanged			.....
Scrip convertible into stock			.....
Other paid stock liability			.....
Total capital stock liability			.....
Number of shares issued and outstanding, common.	400		
Number of shares issued and outstanding, preferred.	431		
Total number of shares outstanding	831		
Number of stockholders, common	20		
Number of stockholders, preferred	5		
Total number of stockholders	25		
Amount of stock held, common		.....	
Amount of stock held, preferred		.....	
Total stock held		.....	

REAL ESTATE MORTGAGES.

Description of mortgaged property.	Rate of interest.	Mortgage when due.	Amount.	Interest paid during the year.
All to secure bonds. Sec. 6, Edw. VII, chap. 3	4%	July 5, 1926	$100,000 00	
Totals				

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest.	Day of maturity.	Amount outstanding.	Interest paid during the year.
Totals				

SINKING AND OTHER SPECIAL FUNDS.

Amount December 31, 1922, of reserve for damages fund		
of fund		$13,715 46
Total, December 31, 1922		
Additions during the year to fund		
to reserve for damages fund		$2,663 31
Total including additions		$16,378 77
Deductions during the year from fund		
from fund		
Total sinking and other special funds, December 31, 1923		$16,378 77

VOLUME OF TRAFFIC—EQUIPMENT, ETC.

Volume of Traffic, Etc.:	
Number of passengers paying revenue carried during the year	202,995
Number carried per mile of main railway track operated	25,375
Number of car miles run	199,680
Average number of persons employed	19
If the Company commenced operation during the year, give the date	
Average amount received from each passenger (revenue passenger)	$4.91
Amount of passenger earnings per mile of road	
Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	9 miles per hr.
Average rate of speed of freight cars per hour	

Description of equipment.	No. of motor cars.	Trailer cars.	Official cars.	Electric locomotives.	Baggage and mail express cars.	Cattle and box cars.	Refrigerator cars.	Platform cars.	Coal and dump cars.	Conductors' vans.	Work cars.	Snow plows.	Snow sweepers.	Equipped with fenders.	Equipped with stoves.	Equipped with electric heaters.
Box passenger cars	8	...	...	....	....	....	...	...	...	...	1	1	1	all	....	all
Open passenger cars	12	...	...	....	....	....	...	...	...	...	...	...	...	....	....	....

MISCELLANEOUS EQUIPMENT.

	Total Number.
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock: None.	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER).

Railway owned, etc.	Owned.	Held under lease or contract.	Trackage over other railways.	Total owned, leased, etc.	Total operated.
Length of railway line	8	....	.....	.....	.....
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	.....	.....	.....	.....	.....
Length of sidings, switches, etc	.....	.....	.....	.....	.....
Total, computed as single track	.....	.....	.....	.....	.....
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED—FOR YEAR ENDING DECEMBER 31, 1923.

Flour.		Grain.		Live stock.		Lumber.		Fuel.		All other articles.	Total tonnage.	Remarks.
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B. M.	Tons	Cord	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails.		Weight per yard.		No. ties to mile.	General Remarks.
Steel.	Iron.	Steel.	Iron.		
Steel.....	.....	56/60	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	90 lbs.	.....	2,600	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	T. rails	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: City of Kingston, Village of Portsmouth.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads.	Unprotected.	How protected.	Number of tracks at crossing.	
			Railroad tracks.	Railway tracks.
Crossings of railways with railroads at grade (.....in number), viz.:				
With Kingston-Pembroke Railway at Cor. of Montreal and Rideau Sts. in the City of Kingston.....	.....	De-rails	.....	One
No. junctions with other railways.....	.....	.....	.....	.....
No. of overhead bridges.....	.....	.....	.....	.....
No. of highway crossings.....	.....	.....	.....	.....
Height of overhead bridges above rail level.	.....	.....	.....	.....
Radius of sharpest curve.....	45 ft.	.....	.....	.....
No. of feet per mile of heaviest gradient...	5%	.....	.....	.....
Gauge of railway.....	4 ft. 8½ ins.	.....	.....	.....
Width of devil strip.....	4'4" x 4" 8½"	.....	One	.....
Total number of tracks at crossings.....			.....	.....
Number of above crossings at which frogs are inserted in the tracks.....				

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY, DECEMBER 31, 1923.

Accidents.	Due to unavoidable causes.		Due to carelessness of employees.		Due to carelessness of other persons.	
	Serious.	Trivial.	Serious.	Trivial.	Serious.	Trivial.
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents, $474.09.

ACCIDENTS TO PERSONS.

Killed or injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons				1		
Totals	None	None		1		

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st 6 mths.	2nd 6 mths.	2nd yr.
25c per day increase from Apr. 10, 1920					
Inspectors (all year)	1	10			$3 80
Conductors (all year)	10	10	$3 25	$3 30	3 35
Motormen (all year)	10	10	3 25	3 30	3 35
Starters					
Roadmen	1	10			3 50
Linemen	2	10			3 95
Engineers					
Blacksmiths	1	10			5 00
Painter	1	9			40c hr.
Carpenter	1	10			5 00
Carpenter's helper	1	10			3 55
Machinist's helper	1	10			3 50
Car cleaners					
Average number of employees					
Watchmen	1	12			22 50
Switchmen and crossing tenders					for 7 nights

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Kingston, Portsmouth & Cataraqui Electric Railway Company, Kingston, Ont.

Names and business address of principal officers: President, Henry W. Richardson (deceased); Vice-President, Robt. V. Rogers (deceased); Treasurer and Secretary, William V. Nickle; Superintendent, Hugh C. Nickle.

Name of officer, and address, to whom correspondence regarding this report should be addressed: William V. Nickle, Secretary and Treasurer, Kingston, Ont.

Names and residence of Board of Directors: Henry W. Richardson, Kingston, Ont. (deceased); Robt. V. Rogers, Kingston, Ont. (deceased); William V. Nickle, Kingston, Ont.; Hugh C. Nickle, Kingston, Ont.; Capt. George Richardson (killed in action); James Richardson, Kingston, Ont.; W. D. Ross, Toronto, Ont.

ANNUAL REPORT OF THE

KITCHENER AND WATERLOO ELECTRIC STREET RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: City of Kitchener and Town of Waterloo.

Name of Company: The Kitchener and Waterloo Street Railway Company.

Date of Incorporation: Purchased from private company by City of Kitchener on May 1st, 1907.

Dates of subsequent legislation.....

Date of expiry of franchise.....

Amount paid to Municipality per year per mile of track.....$.....

Further amounts, if any, paid to Municipality by way of percentage earnings:

75% of $2,064.66 paid to City of Kitchener; 25% of $2,064.66 to Town of Waterloo

Total amount paid to Municipality during year for franchise:

Kitchener	$1,548 00
Waterloo	516 17
Appraised value of plant and tracks for purposes of taxation	.....
Total taxes paid during year to Municipality	$411 67
Amount of aid received from Municipality, if any	None
Power consumed per car mile in kilowatt hours:	5.219
Cost per horse power for motive power used in operating plant	$31 91
Cost of power per kilowatt per hour	1.04c
Cost of power per car mile	4.4c

Average speed of cars: 12 miles per hour.

State if power is purchased or generated by Company: Purchased.

State if power is generated by steam or water power: Ontario Hydro-Electric.

Give number of power houses: One.

General Exhibit:

Gross earnings from operation		$118,565 11
Operating expenses		85,034 09
Net earnings from operation		$33,531 02
Miscellaneous income	.....	
Total miscellaneous income		.....
Gross income above operating expenses		.....
Charges upon income accrued during the year:		
Interest on funded debt	$13,147 24	
Interest and discount on unfunded debts and loans	.....	
Taxes, Municipal	.....	
Taxes, Provincial	.....	
Taxes, Commutation	411 67	
Rentals of leased railways	.....	
Payments to sinking and other special funds:		
Annual payments on debenture principal	9,808 73	
Depreciation	8,163 38	
Other deductions from income	.....	
Total charges and deductions from income		$31,531 02
Net divisible income		$2,000 00

Dividends declared.....per cent. on $.....	.....	
.....per cent. on	.....	
Total dividends declared.....		.....
Surplus or deficit for year ending December 31, 1922.....		.....
Amount of surplus or deficit, December 31, 1921.....		.....
Credits to profit and loss account during the year.....	.....	
Total credits.....	.....	
Debits to profit and loss account during the year.....	.....	
Total debits.....	.....	
Net amount credited to profit and loss.....		.....
Total surplus or deficit, December 31, 1922.....		$2,000 00

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried.....	$109,805 50
" carriage of mails.....	3,243 08
" carriage of express and parcels.....	187 93
" carriage of freight.....	.....
" tolls for use of tracks by other companies.....	2,957 56
" rentals of buildings and other property.....	38 60
" advertising in cars.....	967 75
" interest on deposits.....	525 45
Other earnings from operation: Street flushing and premium on debentures sold.....	839 24
Gross earnings from operation.....	$118,565 11
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants.....	$4,115 63
General office expenses and supplies.....	791 00
Legal expenses.....	66 67
Insurance.....	4,894 43
Maple Lane station.....	552 58
Other general expenses: Barn expense.....	711 87
Rent, $655.00; office furniture, $43.56; advertising, $251.28.....	949 84
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track.....	5,776 18
Repair of electric line construction.....	232 38
Repair of buildings.....	6 44
Crossing expense, watchman's repairs.....	2,197 39
Maintenance of Equipment:	
Repair of cars.....	2,152 74
Repair of electric equipment of cars.....	2,219 79
Repair of miscellaneous equipment, tools.....	651 24
Provender and stabling auto maintenance.....	1,024 57
Car service expense.....	2,184 96
Transportation Expenses: .	
Cost of electric motive power, $.....; less power sold, $.....; net....	12,733 08
Wages and compensation of persons employed in conducting transportation.....	43,150 88
Removal of snow and ice.....	132 87
Damages for injuries to persons and property.....	489 55
Tolls for trackage over other railways.....	.....
Rentals of buildings and other property.....	.....
Other transportation expenses.....	.....
Total operating expenses.....	$85,034 09

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length, 3,409 feet), including entrance to new barn	$38,470 81	
New electric line construction (length, 3,409 feet)	1,561 99	
Other additions to railway	.....	
Total additions to railway		$40,032 80
Additions to equipment:		
Additional cars (one in number) sprinkler	$6,203 69	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		6,203 69
Additions to land and buildings:		
Additional land necessary for operation of railway	$3,072 38	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway barn	71,594 92	
Total additions to land and buildings		74,667 30
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		$120,903 79
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Total deductions from property accounts		.....
Net addition to property accounts for the year		$120,903 79

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	$165,322 69	
Electric line construction, including poles, wiring, feeder lines, etc.	16,005 93	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		$181,328 62
Cost of equipment:		
Passenger cars and other rolling stock	$130,652 64	
Electric equipment of same	22,049 92	
Other items of equipment	.....	
Total cost of equipment owned		152,702 56
Cost of land and buildings:		
Land necessary for operation of railway	$8,534 17	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway:	91,546 30	
Total cost of land and buildings owned		100,080 47
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$434,111 65

Cash and current assets:		
Cash	$794 97	
Bills and accounts receivable	1,737 43	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		2,532 40
Miscellaneous assets:		
Materials and supplies	$18,622 97	
Other assets and property: Bridgeport railway	508 63	
Total miscellaneous assets		19,131 60
Profit and loss balance—deficit		.....
Total		$455,775 65
Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$241,733 46
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	$3,511 04	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		3,511 04
Accrued liabilities:		
Interest accrued and not yet due	$6,959 52	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities: Bank overdraft	58,435 19	
Total accrued liabilities		65,394 71
Sinking and other special funds:		
Debentures paid	$67,866 54	
Depreciation	75,269 90	
Total sinking and other special funds		143,136 44
Profit and loss balance—Surplus		2,000 00
Total		$455,775 65

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital Stock:		
Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....

Amount paid in on.....shares not yet issued..... .....
Amount paid in on stock to be exchanged..... .....
Scrip convertible into stock..... .....
Other paid stock liability..... .....

Total capital stock liability..... .....

Number of shares issued and outstanding, common..... .....
Number of shares issued and outstanding, preferred..... .....

Total number of shares outstanding..... .....

Number of stockholders, common..... .....
Number of stockholders, preferred..... .....

Total number of stockholders..... .....

Amount of stock held, common..... .....
Amount of stock held, preferred..... .....

Total stock held..... .....

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Totals				

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Totals				

SINKING AND OTHER SPECIAL FUNDS.

Amount, December 31, 192...., of.....fund, ...
of.....fund, ...

Total, December 31, 192...., ...

Additions during the year to .....fund, ...
to .....fund,..... .....

Total, including additions..... .....

Deductions during the year from.....fund, ...
from.....fund, ...

Total sinking and other special funds, December 31, 1923..... .....

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.

Number of passengers paying revenue carried during the year	2,734,633
Number carried per mile of main railway track operated	455,772
Number of car miles run	292.251
Average number of persons employed	36
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	4c
Amount of passenger earnings per mile of road	18,300.91

Freight:

Number of tons freight earning revenue	None
Number of tons freight carried per mile of road	.....
Average amount received for each ton of freight	.....
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	.....
Average rate of speed of freight cars per hour	.....

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	15	1	...	...	....	...	...	...	...	...	...	1	1	All	....	All
Open passenger cars	2	4	...	...	....	...	...	...	...	...	...	....	...	....	....	....

Miscellaneous Equipment

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED

Railway Owned, Leased and Operated (by Electric Power.)

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	4.30	.....	.....	4.30	4.30
Length of second main track	1.74	.....	.....	1.74	1.74
Total length of main track	6.04	.....	.....	6.04	6.04
Length of sidings, switches, etc.	.84	.....	.....	.84	.84
Total, computed as single track	6.88	.....	.....	6.88	6.88
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General Remarks
Steel	Iron	Steel	Iron		
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: City of Kitchener, Town of Waterloo.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:				
With Can. National Ry. at King St., Kitchener	Watchman	interlocks	3	1
With Can. National Ry. at Waterloo.....	Yes	interlocks	2	1
With Grand River Ry. at Wilmot St., Kitchener.....	Yes	interlocks	1	1
No. junctions with other railways.....	.....	.....	.....	.....
No. of overhead bridges.....	2	.....	.....	.....
No. of highway crossings.....	None			
Height of overhead bridges above rail level	None	.....	.....	.....
Radius of sharpest curve.....	50 ft.	.....	.....	.....
No. of feet per mile of heaviest gradient...	3.9%	.....	.....	.....
Gauge of railway.....	4 ft. 8½ in.	.....	.....	.....
Width of devil strip.....	5 ft. 2 in.	.....	.....	.....
Total number of tracks at crossings			.....	.....
Number of above crossings at which frogs are inserted in the tracks.....				

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property					2	
Total					2	

Total amount paid during year for damages caused by accidents: $489.55.

ACCIDENTS TO PERSONS.

Killed and Injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		2				2
Employees					1	
Other persons		1				1
Totals		3			1	3

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors	10	10	$3 62½	$4 12½	$4 50
Motormen	10	10	3 62½	4 12½	4 50
Starters		1 foreman	150 00	per mo.	
Roadmen	9	10			4 00
Linemen					
Engineers					
Blacksmiths	1	10			5 00
Firemen					
Electricians					
Armature winders	1	10			5 00
Machinists and mechanics	4	10			5 00
Car cleaners	1	12			4 80
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address: The Kitchener Light Commissioners, cor. King and Gaukel Sts., Kitchener. Ont.

Names and business address of principal officers: Chairman, A. R. Lang, 377 King Street West, Kitchener, Ont.; Vice-Chairman, Carl Kranz, 87 Queen Street South, Kitchener, Ont.; Treasurer, G. H. Clarke, cor. King and Gaukel Sts., Kitchener, Ont.; General Counsel, George Bray, 77 King Street West; Auditor, J. M. Scully, F.C.A., Ontario Street South, Kitchener, Ont.; Superintendent, V. S. McIntyre, cor. King and Gaukel Sts., Kitchener, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: G. H. Clarke, Secretary-Treasurer, cor. King and Gaukel Sts., Kitchener, Ont.

Names and residence of Board of Directors: A. R. Lang, 377 King Street West, Kitchener, Ont.; Carl Kranz, 87 Queen Street South, Kitchener, Ont.; C. H. Doerr, 138 Weber Street West, Kitchener, Ont.; David Gross, 34 Water Street North, Kitchener, Ont.

ANNUAL REPORT OF THE

LONDON STREET RAILWAY COMPANY

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: London, Ont.	
Name of Company: London Street Railway Company.	
Date of Incorporation: March 29th, 1873.	
Dates of subsequent legislation	
Date of expiry of franchise: March 8th, 1925.	
Amount paid to Municipality per year per mile of track	Nil.
Further amounts, if any, paid to Municipality by way of percentage earnings	Nil.
Total amount paid Municipality during year for franchise	Nil.
Appraised value of plant and tracks for purposes of taxation	
Total taxes paid during year to Municipality	$7,959 33
Amount of aid received from Municipality, if any	Nil.
Power consumed per car mile in kilowatt hours: Total, 4,320,283 K.W. / 2,124,160 miles	2.03 K.W.
Cost per horse power for motive power used in operating plant: $36.00 per H.P.	
Cost of power per kilowatt per hour ($43,882.15)	1.02c
Cost of power per car mile	2.07c
Average speed of cars: 9 miles per hour.	
State if power is purchased or generated by Company: Purchased Hydro power.	
State if power is generated by steam or water power: No.	
Give number of power houses: One, dismantled.	

General Exhibit:

Gross earnings from operation			$693,411 17
Operating expenses			572,082 09
Net earnings from operation			$121,329 08
Miscellaneous income			
Total miscellaneous income			
Gross income above operating expenses			
Charges upon income accrued during the year:			
Interest on funded debt		$23,750 00	
Interest and discount on unfunded debts and loans		3,455 46	
Taxes, Municipal	$7,959 33		
Taxes, Provincial	1,606 23		
Taxes, Township	315 60		
		$9,881 16	
Rentals of leased railways			
Payments to sinking and other special funds:			
Depreciation of road and equipment	$37,364 58		
		37,364 58	

Other deductions from income:		
Dominion income tax	$4,712 18	
	$4,712 18	
Total charges and deductions from income		$79,163 38
Net divisible income		$42,165 70
Dividends declared: 5 per cent. on $637,480.00	$31,874 00	
.....per cent on.....	.....	
Total dividends declared		31,874 00
Surplus for year ending December 31, 1923		$10,291 70
Amount of surplus, December 31, 1922		108,727 32
Credits to profit and loss account during the year:		
Total credits	None	
Debits to profit and loss account during the year:		
Total debits	.....	
Net amount credited to profit and loss		.....
Total surplus or deficit, December 31, 1923		$119,018 02

EARNINGS AND EXPENSES OF OPERATION.

Earnings from operation:	
Receipts from passengers carried	$686,308 14
" carriage of mails mail carriers	2,695 00
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	316 00
" advertising in cars	3,769 96
" interest on deposits	309 78
Other earnings from operation	12 29
Gross earnings from operation	$693,411 17
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$17,157 48
General office expenses and supplies	1,239 76
Legal expenses	3,155 00
Insurance	4,040 87
Switching charges, if any	.....
Other general expenses	9,904 89
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	71,343 57
Repair of electric line construction	11,429 86
Repair of buildings	3,351 47
Maintenance of Equipment:	
Repair of cars	45,058 90
Repair of electric equipment of cars	33,055 03
Repair of miscellaneous equipment	4,354 56
Provender and stabling	.....
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	43,882 15
Wages and compensation of persons employed in conducting transportation	273,305 21
Removal of snow and ice	1,587 47
Damages for injuries to persons and property	22,729 05
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses	26,486 82
Total operating expenses	$572,082 09

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet).....	.....	
New electric line construction (length.....feet).....	.....	
Other additions to railway: Paving and renewal of tracks..	$89,854 31	
Total additions to railway.....		$89,854 31
Additions to equipment:		
Additional cars (8 in number).....	$51,591 02	
Electric equipment of same.....	21,500 00	
Other additional rolling stock.....	.....	
Other additions to equipment.....	1,001 38	
Total additions to equipment.....		74,092 40
Additions to land and buildings:		
Additional land necessary for operation of railway.....	.....	
New electric power stations, including machinery, etc.....	.....	
Additional equipment of power stations.....	.....	
Other new buildings necessary for operation of railway.....	$230 07	
Total additions to land and buildings.....		230 07
Additions to other permanent property:		
Real estate in trust.....	$87 60	
Total additions to other permanent property.....		87 60
Total additions to property accounts.....		$164,264 38
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Real estate in trust.....	$2,000 00	
Power plant.....	50	
Electric equipment scrapped.....	6,000 00	
Cars scrapped.....	10,500 00	
Total deductions from property accounts.....		18,500 50
Net addition to property accounts for the year.....		$145,763 88

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks.....	$940,290 77	
Electric line construction, including poles, wiring, feeder lines, etc.....	86,404 91	
Interest accrued during construction of railway.....	70,937 50	
Engineering and other expenses incident to construction...	.....	
Other items of railway cost.....	.....	
Total cost of railway owned.....		$1,097,633 18
Cost of equipment:		
Passenger cars and other rolling stock.....	$219,381 28	
Electric equipment of same.....	118,927 81	
Other items of equipment.....	46,297 74	
Total cost of equipment owned.....		384,606 83
Cost of land and buildings:		
Land necessary for operation of railway and buildings.....	$95,195 58	
Electric power stations, including equipment.....	102,910 27	
Other buildings necessary for operation of railway.....	7,273 71	
Total cost of land and buildings owned.....		205,379 56

Other permanent property: Real estate in trust	.....	
Total cost of other permanent property owned		$5,544 65
Total permanent investments		$1,693,164 22
Cash and current assets:		
Cash	$12,122 45	
Bills and accounts receivable	2,329 53	
Sinking and other special funds	.....	
Other cash and current assets	2,745 00	
Total cash and current assets		17,196 98
Miscellaneous assets:		
Materials and supplies	$43,574 33	
Other assets and property	1,697 19	
Bonds in treasury	2,000 00	
Total miscellaneous assets		$47,271 52
Profit and loss balance—deficit		.....
Total		$1,757,632 72
Liabilities:		
Capital stock, common		$637,480 00
Capital stock, preferred		.....
Total capital stock		$637,480 00
Funded debt		475,000 00
Real estate mortgages, bonds in treasury (see debit)		2,000 00
Current liabilities:		
Loans and notes payable	$123,402 41	
Audited vouchers and accounts	22,496 52	
Salaries and wages	14,820 67	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities:		
Outstanding tickets	5,619 70	
Total current liabilities		166,339 30
Accrued liabilities:		
Interest accrued and not yet due	$7,544 89	
Taxes accrued and not yet due	4,712 18	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities:		
Total accrued liabilities		12,257 07
Sinking and other special funds:		
Depreciation	$339,820 84	
Injuries and damages	5,717 49	
Total sinking and other special funds		345,538 33
Profit and loss balance—Surplus		119,018 02
Total		$1,757,632 72

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital Stock:		
Capital stock authorized by law, common	$750,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$750,000 00	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	$750,000 00	
Capital stock issued and outstanding, common		$637,480 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$637,480 00

Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$637,480 00
Number of shares issued and outstanding, common	15,937	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	15,937	
Number of stockholders, common	66	
Number of stockholders, preferred	.....	
Total number of stockholders	66	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt—Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
First mortgage 5% bonds	5%	Mar. 8, 1925	$475,000 00	$23,750 00
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

SINKING AND OTHER SPECIAL FUNDS:

Amount, December 31, 1923, of depreciation fund	$318,956 26	
of injuries and damages fund	5,717 49	
Total, December 31, 1922		$324,673 75
Additions during the year to depreciation fund	$37,364 58	
to injuries and damages fund	.....	
		37,364 58
Total, including additions		$362,038 33
Deductions during the year from depreciation fund,	$16,500 00	
from.....fund,		$16,500 00
Total sinking and other special funds, December 31, 1923	.....	$345,538 33

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	13,865,148
Number carried per mile of main railway track operated	.....
Number of car miles run	2,124,160
Average number of persons employed	
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	4.94 cts.
Amount of passenger earnings per mile of road	$18,991 91

Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	53	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....
Open passenger cars	8	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power.)

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	.....	.....	.....	.....	.....
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	36.10	.....	.....	.....	36.10
Length of sidings, switches, etc.	.....	.....	.....	.....	.....
Total, computed as single track	.....	.....	.....	.....	.....
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft. B.M.	Tons	Cords	Tons			

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General Remarks
Steel	Iron	Steel	Iron		

Names of the several cities and towns in which the railways operated by the Company are located.....

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With Grand Trunk, Richmond St.	Derails and	gates	5	2
With Grand Trunk, Rectory St.	Derails and	gates	5	1
With Grand Trunk, Dundas St.	Inter'locker		1	1
With Canadian Pacific, Richmond St	Derails and	gates	2	2
With Canadian Pacific, Richmond St. spur.	No protection		1	2
With Canadian Pacific, Adelaide St.	Derails		2	1
With London & Port Stanley, Horton St.	Derails		1	1
With London & Port Stanley, South St.	Derails		2	1
No. junctions with other railways	1			
No. of overhead bridges				
No. of highway crossings				
Height of overhead bridges above rail level				
Radius of sharpest curve	37			
No. of feet per mile of heaviest gradient	334			
Gauge of railway	4′ 8½			
Width of devil strip	4′ 9″ & 5′ 1″			
Total number of tracks at crossings			19	11

Number of above crossings at which frogs are inserted in the tracks: all crossings.

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons						
Totals						

STATEMENT OF EACH ACCIDENT.

.....
.....
.....

WAGES STREET RAILWAY COMPANIES OR RADIAL RAILWAYS.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics					
Car Cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

Corporate Organization.

Corporate name and address of the Company: London Street Railway Company, London, Ont.

Names and business address of principal officers: President, Chas. Currie, Cleveland, Ohio; Vice-President, R. G. Ivey, London, Ont.; Treasurer, L. Tait, London, Ont.; General Counsel, Ivey, Elliott & Gillanders; Auditors, F. H. Coles and J. P. Dewan; General Manager, C. B. King; Superintendent, H. H. Humeston. Name of officer, and address, to whom correspondence regarding this report should be addressed: L. Tait, Secretary-Treasurer, London, Ont.

Names and residence of Board of Directors: Chas. Currie, Cleveland, Ohio; R. G. Ivey, London, Ont.; W. M. Spencer, London, Ont.; J. C. Elliott, London, Ont.; C. B. King, London, Ont.; P. W. D. Brodrick, Toronto, Ont.; H. H. Allyn, Cleveland, Ohio.

ANNUAL REPORT OF THE

MOUNT McKAY AND KAKABEKA FALLS RAILWAY COMPANY, LIMITED.

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Municipality of Neebing, Township of Paipoonge.
Name of Company: Mount McKay & Kakabeka Falls Railway Company, Limited.
Date of Incorporation: 1904.
Dates of subsequent legislation: 1908, 1912, 1916, 1920 and 1922.
Date of expiry of franchise: 1926.
Amount paid to Municipality per year per mile of track..... Nil.
Further amounts, if any, paid to Municipality by way of percentage earnings..... Nil.
Total amount paid Municipality during year for franchise..... Nil.
Appraised value of plant and tracks for purposes of taxation..... No taxes in plant.
Total taxes paid during year to Municipality..... $448 21
Amount of Aid received from Municipality, if any.....
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars.....
} Line leased to City of Fort William from 1st of August, 1923, until that date operated by steam.
State if power is purchased or generated by Company: City of Fort William now operating by electricity.
State if power is generated by steam or water power:
Give number of power houses.....

General exhibit for the year:

Gross earnings from operation:		
Gravel, sand sales off Company's lands		$9,328 00
Operating expenses		4,264 85
Net earnings from operation		$5,063 15
Miscellaneous income:		
Interest	$155 41	
	14 00	
Total miscellaneous income		169 41
Gross income above operating expenses		$5,232 56
Charges upon income accrued during the year:		
Interest on funded debt	.....	
Interest and discount on unfunded debts and loans	$9 13	
Taxes, Municipal	$398 21	
Taxes, Provincial	50 00	
Taxes, Commutation	448 21	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	

Maintenance, $279.31; Management, $1,049.50; Insurance, $170.90; Renewing charters, $159.10	$1,658 81		
Written off for depreciation	21,354 13		
		$23,012 94	
Total charges and deductions from income			$23,470 28
Net divisible income			$18,237 72
Dividends declared.....per cent. on $.....		.....	
.....per cent. on $.....		.....	
Total dividends declared			.....
Deficit for the year ending December 31, 1923			$18,237 72
Amount of deficit, December 31, 1922			27,602 45
Credits to profit and loss account during the year		.....	
Total credits		.....	
Debits to profit and loss account during the year		.....	
Total debits		.....	
Net amount credited to profit and loss			.....
Total deficit, December 31, 1923			$45,840 17

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	.....
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	.....
" advertising in cars; Dividend Canadian Car Foundry Co.	$14 00
" interest on deposits	155 41
Other earnings from operation:	
From sale of sand and gravel from Company's land	9,328 00
Gross earnings from operation	$9,497 41
Expenses of operation:	
General expenses:	
Directors' fees	$205 00
Salaries of general officers and clerks and attendants	844 50
General office expenses and supplies	.....
Legal expenses	159 10
Insurance	179 90
Switching charges, if any	.....
Other general expenses:	
Taxes, $448.21; discount, interest and exchange, $9.13	457 34
Maintenance of roadbed and buildings:	
Repair of roadbed and track	.....
Repair of electric line construction	.....
Repair of buildings	.....
Maintenance of equipment:	
Repair of cars	71 18
Repair of locomotives	208 13
Repair of miscellaneous equipment	.....
Provender and stabling	.....

Transportation expenses:		
Cost of electric motive power, $.....; less power sold, $.....net,		.....
Wages and compensation of persons employed in conducting transportation		$679 32
Removal of snow and ice		.....
Damages for injuries to persons and property		.....
Tolls for trackage over other railways		.....
Rentals of buildings and other property		.....
Other transportation expenses:		
Fuel, $904.15; miscellaneous, $559.98; handling charges, sand, etc., $2,121.40		3,585 53
Total operating expenses		$6,381 00

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway	.....	
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	$37,539 27	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		$37,539 27
Cost of equipment:		
Passenger cars and other rolling stock	$29,401 03	
Electric equipment of same	.....	
Other items of equipment: Pumping plant and windmill	671 90	
Total cost of equipment owned		30,072 93

Cost of land and buildings:		
Land necessary for operation of railway	$291,425 00	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	1,133 60	
Total cost of land and buildings owned		292,558 60
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$360,170 80
Cash and current assets:		
Cash	$6,750 00	
Bills and accounts receivable	3,888 35	
Sinking and other special funds	.....	
Other cash and current assets: Stock certificates	1,490 00	
Total cash and current assets		12,128 66
Miscellaneous assets:		
Franchises	$50,000 00	
Unexpired insurance	102 15	
Charter Renewal	39 90	
Materials and supplies	508 54	
Other assets and property:		
Parks and power development	5,671 62	
Total miscellaneous assets		.....
Profit and loss balance—Deficit		45,840 17
Total		$474,461 84
Liabilities:		
Capital stock, common		$386,955 00
Capital stock, preferred		.....
Total capital stock		$386,955 00
Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	$3 92	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		3 92
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	.....
Total accrued liabilities		.....
Sinking and other special funds: Reserve account	$87,502 92	
Total sinking and other special funds		87,502 92
Profit and loss balance—Surplus		.....
Total		$474,461 84

Capital Stock—Real Estate Mortgages.

Capital stock:		
Capital stock authorized by law, common	$500,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$500,000 00	
Capital stock authorized by votes of company, common	386,955 00	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	$336,955 00	
Capital stock issued and outstanding, common		$386,955 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$386,955 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$386,955 00
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Totals			Nil.	Nil.

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Totals			Nil	Nil

Sinking and Other Special Funds.

Amount, December 31, 1921, of.....fund,.....	.....	
of.....fund,.....	.....	
Total, December 31, 1921.....		.....
Additions during the year to.....fund,.....	.....	
to.....fund,.....	.....	
Total, including additions.....		.....
Deductions during the year from.....fund,.....	.....	
from.....fund,.....	.....	
Total sinking and other special funds, December 31, 1922.....		.....

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year.....	
Number carried per mile of main railway track operated.....	
Number of car miles run.....	
Average number of persons employed.....	10
If the Company commenced operation during the year, give the date.....	
Average amount received from each passenger.....	
Amount of passenger earnings per mile of road.....	
Freight:	
Number of tons freight earning revenue.....	
Number of tons freight carried per mile of road.....	
Average amount received for each ton of freight.....	
Average receipts per ton of freight per mile.....	
Average rate of speed of passenger cars per hour.....	
Average rate of speed of freight cars per hour.....	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars.....	...	2	...	....	....	...	...	...	10	...	...	...	...	....	....	....
Open passenger cars.....	...	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock: 1 steam locomotive.....	1
Other highway vehicles.....	
Horses.....	
Other items of equipment.....	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	5 miles				5 miles
Length of second main track					
Total length of main track					
Length of sidings, switches, etc.	1½ miles				1½ miles
Total, computed as single track					
Length of line under construction					

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
										Sand and gravel		

Description Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
					Main line, 80 lbs.
					Side tracks, 50 and 60 lbs.

Names of the several cities and towns in which the railways operated by the Company are located: Municipality of Neebing and Township of Paipoonge.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With C.N. Railway—They to come to stop, and this Company to 4 miles per hour.				
No. junctions with other railways				
No. of overhead bridges				
No. of highway crossings				
Height of overhead bridges above rail level				
Radius of sharpest curve				
No. of feet per mile of heaviest gradient				
Gauge of railway				
Width of devil strip				
Total number of tracks at crossings				
Number of above crossings at which frogs are inserted in the tracks				

GENERAL REMARKS AND EXPLANATIONS.

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.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents:

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons						
Totals						

STATEMENT OF EACH ACCIDENT.

WAGES OF STREET RAILWAY COMPANY OR RADIAL RAILWAY

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics					
Car cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Mount McKay & Kakabeka Falls Railway Company, Limited, Fort William, Ont.

Names and business address of principal officers: President, James Murphy, Fort William, Ont.; Vice-President, Joshua Dyke, Fort William, Ont.; Treasurer, C. H. Jackson, Fort William, Ont.; General Counsel, John A. Dyke, Fort William, Ont.; Auditors: Smith & Ross, Fort William, Ont.; General Manager, James Murphy, Fort William, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: W. C. Lillie, Secretary, Fort William, Ont.

Name and residence of Board of Directors: James Murphy, Fort William, Ont.; Joshua Dyke, Fort William, Ont.; Clarence H. Jackson, Fort William, Ont.; Walter F. Hogarth, Fort William, Ont.; Wm. Charles Lillie, Fort William, Ont.

ANNUAL REPORT OF THE

NIAGARA FALLS PARK AND RIVER DIVISION OF INTERNATIONAL RAILWAY COMPANY

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: From Chippawa to Queenston, in the Province of Ontario, through the intervening municipalities.

Name of Company: International Railway Company.

Date of Incorporation: February 20th, 1902.

Dates of subsequent legislation: This Company acquired under provisions of Chapter 86, of the Laws of Ontario for 1901 the railway of the Niagara Falls Park and River Railway Company, incorporated by Chapter 96 of the laws of 1892. The company operates this railway in the Province of Ontario on the lands vested in the Commissioners of Queen Victoria Park, on private property, as a division of the entire system.

Date of expiry of franchise: 1932 and may be renewed for twenty years.

Amount paid to Municipality per year per mile of track	$309 23
Further amounts, if any, paid to Municipality by way of percentage earnings	None
Total amount paid Municipality during year for franchise	None
Appraised value of plant and tracks for purposes of taxation	$291,750 00
Total taxes paid during year to Municipality	7,571 15
Amount of aid received from Municipality, if any	None
Power consumed per car mile in kilowatt hours	8.95
Cost per horse power for motive power used in operating plant	None
Cost of power per kilowatt per-hour	$ .00447
Cost of power per car mile	$ .0401
Average speed of cars	8.0 miles

State if power is purchased or generated by Company: Generated.

State if power is generated by steam or water power: Water power.

Give number of power houses: One.

Part of the power generated in Canada is used by other divisions of the Company in the United States; no record is kept by the Company of the amount consumed by the Park and River Division.

General exhibit:

Gross earnings from operation			$183,368 54
Operating expenses			205,091 23
Net earnings from operation			$21,722 69
Miscellaneous income:			
Interest on deposits, $355.04; interest on bonds, $144.64; Rent of land and buildings, (net) $20,037.14		$20,536 82	
Total miscellaneous income			20,536 82
Gross income above operating expenses			$1,185 87
Charges upon income accrued during the year:			
Interest on funded debt		$30,000 00	
Interest and discount on unfunded debts and loans		.....	
Taxes, Municipal	$7,571 15		
Taxes, Provincial	845 77		
Taxes, commutation	.....		
		8,416 92	
Rentals of leased railways	.....		
Payments to sinking and other special funds	.....		
Other deductions from income: Rent, right of way, Queen Victoria Park $10,000.00; Rent, right of way. Chippawa, $77.04	$10,077 04		
Depreciation, way structures, equipment and power	42,051 92		
		52,128 96	
Total charges and deductions from income			$90,545 88
Net divisible income			$91,731 75

Dividends declared.....per cent. on $.....	.....	
.....per cent. on	.....	
Total dividends declared.....		.....
Surplus or deficit for the year ending December 31, 1922.....		$91,731 75
Amount of surplus or deficit, December 31, 1921.....		.....
Credits to profit and loss during the year.....	.....	
Total credits.....	.....	
Debits to profit and loss account during the year.....	.....	
Total debits.....	.....	
Net amount credited to profit and loss.....		.....
Total surplus or deficit. December 31, 1922.....		.....

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried.....	$178,732 84
" carriage of mails.....	560 91
" carriage of express and parcels.....	87 45
" switching.....	1,538 58
" rent from equipment.....	8 00
" rentals of buildings and other property.....	160 00
" advertising in cars.....	636 50
" interest on deposits.....	.....
Other earnings from operation:	
Chartered cars.....	406 48
Sale of power.....	1,187 38
Parcel room receipts.....	50 40
Gross earnings from operation.....	$183,368 54
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants.....	$17,898 84
General office expenses and supplies.....	2,289 56
Legal expenses.....	4,495 89
Insurance.....	1,931 25
Switching charges, if any.....	.....
Other general expenses.....	37,115 98
Maintenance of roadbed and buildings:	
Repair of roadbed and track.....	$24,759 34
Repair of electric line construction.....	3,682 83
Repair of buildings.....	2,028 03
Maintenance of equipment:	
Repair of cars.....	7,303 32
Repair of electric equipment of cars.....	6,580 77
Repair of miscellaneous equipment.....	1,043 73
Provender and stabling.....	1,255 87
Transportation expenses:	
Maintenance and operation of power plant, including depreciation and equalization.....	13,324 20
Wages and compensation of persons employed in conducting transportation.....	57,560 09
Removal of snow and ice.....	2,328 04
Damages for injuries to persons and property.....	15,493 80
Tolls for trackage over other railways.....	.....
Rentals of buildings and other property.....	.....
Other transportation expenses.....	5,999 69
Total operating expenses.....	$205,091 23

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet).....	.....	
New electric line construction (length.....feet).....	.....	
Other additions to railway: Installing safety device signals, Queenston Hill.....	$278 80	
Total additions to railway.....		$278 80
Additions to equipment:		
Additional cars (.....in number).....	.....	
Electric equipment of same.....	.....	
Other additional rolling stock.....	.....	
Other additions to equipment.....	.....	
Total additions to equipment.....		.....
Additions to land and buildings:		
Additional land necessary for operation of railway.....	.....	
New electric power stations, including machinery, etc.....	.....	
Additional equipment of power stations.....	.....	
Other new buildings necessary for operation of railway.....	.....	
Total additions to land and buildings.....		.....
Additions to other permanent property.....	.....	
Total additions to other permanent property.....		.....
Total additions to property accounts.....		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Miscellaneous physical property and real estate...	$63,808 38	
Land and buildings..... (Sold in 1922, unreported.)	4,766 00	
Total deductions from property accounts.....		$68,574 38
Net additions to property accounts for the year.....		$62,295 58

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks.....	.....	
Electric line construction, including poles, wiring, feeder lines, etc.....	.....	
Interest accrued during construction of railway.....	.....	
Engineering and other expenses incident to construction ...	.....	
Other items of railway cost.....	.....	
Total cost of railway owned.....		.....
Cost of equipment:		
Passenger cars and other rolling stock.....	.....	
Electric equipment of same.....	.....	
Other items of equipment.....	.....	
Total cost of equipment owned.....		.....
Cost of land and buildings:		
Land necessary for operation of railway.....	.....	
Electric power stations, including equipment.....	.....	
Other buildings necessary for operation of railway.....	.....	
Total cost of land and buildings owned.....		.....
Other permanent property.....	.....	
Total cost of other permanent property owned.....		.....
Total permanent investments.....		.....

Cash and current assets:		
Cash	.....	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		.....
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—Deficit		.....
Total		.....

Unable to furnish for the Niagara Falls Park and River Division.

Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		.....
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Total sinking and other special funds		.....
Profit and loss balance—Surplus		.....
Total		.....

Unable to furnish for the Niagara Falls Park and River Division.

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital stock:		
Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	

Capital stock issued and outstanding, common	.....	
Capital stock issued and outstanding, preferred	.....	.....
Total capital stock outstanding	.....	.....
Amount paid in on .....shares not yet issued	.....	.....
Amount paid in on stock to be exchanged	.....	.....
Scrip convertible into stock	.....	.....
Other paid stock liability	.....	.....
Total capital stock liability	.....	.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	.....
Number of stockholders, preferred	.....	.....
Total number of stockholders	.....	.....
Amount of stock held, common	.....	.....
Amount of stock held, preferred	.....	.....
Total stock held	.....	.....

Not applicable as this division has no capital stock separated and apart from the capital stock of International Railway Company.

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Mortgage bonds	5%	Jan. 11, 1962	$600,000 00	$30,000 00
Totals	.....	.....	$600,000 00	$30,000 00

Mortgage of the Niagara Falls Park & River Railway Company matured on January 1, 1914, and was paid on that date. $600,000 International Railway Refunding and Improvement 5's were issued in lieu of said Niagara Falls Park and River Railway mortgage, being in accordance with Section 4 of Article I of said International Railway Refunding and Improvement Mortgage, dated November 1, 1912, and maturing November 1, 1962, amounting to $60,000,000.

Sinking and Other Special Funds.

Amount, December 31, 1921, of.....fund.....	.....
of.....fund.....	.....
Total, December 31, 1921.....	.....
Additions during the year to.....fund.....	
to.....fund.....	
Total, including additions.....	.....
Deductions during the year from.....fund.....	
from.....fund.....	
Total sinking and other special funds, December 31, 1922.....	.....

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year.....	1,950,629
Number carried per mile of main railway track operated.....	79,663
Number of car miles run.....	332,634
Average number of persons employed.....	56
If the Company commenced operation during the year, give the date.....	
Average amount received from each passenger.....	9.16c
Amount of passenger earnings per mile of road.....	15,001 92
Freight:	
Number of tons freight earning revenue.....	None,
Number of tons freight carried per mile of road.....	See
Average amount received for each ton of freight.....	switching
Average receipts per ton of freight per mile.....	
Average rate of speed of passengers car per hour.....	8.0 miles
Average rate of speed of freight cars per hour.....	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars.....	8	...	...	....	2	...	...	2	...	...	...	1	...	....	....	8
Open passenger cars.....	19	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock.....	
Other highway vehicles.....	
Horses.....	
Other items of equipment.....	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned leased, etc.	Total operated
Length of railway line	11.914	.....	.....	11.914	11.914
Length of second main track	11.202	None	None	11.202	11.202
Total length of main track	23.116	.....	.....	23.116	23.116
Length of sidings, switches, etc.	1.370	.....	.....	1.370	1.370
Total, computed as single track	24.486	.....	.....	24.486	24.486
Length of line under construction	.....	.....	.....	.....	.....

Description of Freight Carried for Year Ending December 31, 1922.

No record of commodities; our record is for switching only.

Description of Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
4¼	None	57 lb. T.	None	2640	.....

Names of the several cities and towns in which the railways operated by the Company are located: Chippawa, Niagara Falls, Queenston, Ont., and various cities and towns in the State of New York, U.S.A.

Grade Crossings with Railroads, Etc.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:— With	None	None	None	None
No. junctions with other railways	3	.....	.....	.....
No. of overhead bridges	2	.....	.....	.....
No. of highway crossings	10	.....	.....	.....
Height of overhead bridges above rail level	14′ and 22′	.....	.....	.....
Radius of sharpest curve	115′	.....	.....	.....
No. of feet per mile of heaviest gradient	300′	.....	.....	.....
Gauge of railway	4′ 8½″	.....	.....	.....
Width of devil strip	.....	.....	.....	.....
Total number of tracks at crossings			.....	.....

Number of above crossings at which frogs are inserted in the tracks. None.....

General Remarks and Explanations.

.....

.....

.....

Summary of Accidents to Property.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property.....						
Damage to property of Municipality.....						
Damage to private property.....						
Total.....						

Total amount paid during year for damages caused by accidents.....

Accidents to Persons.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers.....						2
Employees.....						1
Other persons.....						3
Totals.....						6

Statement of Each Accident.

.....

.....

.....

Wages Street Railway Company or Radial Railway.

	No. employed	Average No. of hours on duty per day	Wages
Inspectors			50c per hr. for 3 mos.
Conductors	10	10	53c per hr. for 9 mos.
Motormen	10	10	55c after 1 year.
Starters			
Trackmen	14	10	42½c per hour.
Foreman	1	10	$134.00 per month.
Engineers			
Blacksmiths			
Firemen	2	12	45c per hour.
Electricans	3	12	59c per hour.
Armature winders			
Machinists and mechanics	2	10	$155.00 per month.
Car house men	1	10	42½c per hour.
	1	10	49½c per hour.
Average number of employees	56		
Ticket agents	2	10	$34.50 per week.
Switchmen and crossing tenders			

Corporate Organization.

Corporate name and address of the Company: International Railway Company, 212 Littell Building, Buffalo, N.Y.

Names and business address of principal officers: President, Herbert G. Tulley, Littell Building, Buffalo, N.Y.; Vice-President Traffic, R. Harland Horton, Littell Building, Buffalo, N.Y.; Vice-President Engineering, Hubert L. Mack, Littell Building, Buffalo, N.Y.; Treasurer. Carl A. Weber, Littell Building, Buffalo, N.Y.; Clerk of Corporation, Carl A. Weber, Littell Building, Buffalo, N.Y.; General Counsel, Penney, Killeen & Nye, 866 Ellicott Sq., Buffalo, N.Y.; Alexander Fraser, Niagara Falls, Ont.; Cohn, Chormann & Franchot, 44 Falls Street, Niagara Falls, N.Y.; A. Monroe Grier, Toronto, Ont.; Auditor, Charles A. Chavel, Littell Building, Buffalo, N.Y.; Superintendent, Elbert H. Henning, Niagara Falls Terminal, Niagara Falls, N.Y.

Name of officer, and address, to whom correspondence regarding this report should be addressed: Charles A. Chavel, Auditor, 212 Littell Bldg., Buffalo, N.Y.

Names and residence of Board of Directors: Henry C. Buswell, 152 Lincoln Pkw., Buffalo, N.Y.; John L. Clawson, 1109 Delaware Ave., Buffalo, N.Y.; Walter P. Cook, 155 Summer St., Buffalo, N.Y.; Willis C. Dunbar, 517 West Arbutus St., Philadelphia, Pa.; R. Harland Horton, 506 Linwood Ave., Buffalo, N.Y.; Chas. R. Huntley, 51 East Main St., Lancaster, N.Y.; Coleman J. Joyce, 1520 Spruce St., Philadelphia, Pa.; Hubert L. Mack, 525 Humbolt Pkw., Buffalo, N.Y.; Thomas E. Mitten, 1520 Spruce St., Philadelphia, Pa.; Thomas Penney, 54 Hodge Ave., Buffalo, N.Y.; Harry T. Ramsdell, 126 Chapin Pkw., Buffalo, N.Y.; Nelson Robinson, 23 East Fifty-fifth St., New York City; Carlton M. Smith, 304 North St., Buffalo, N.Y.; Herbert G. Tulley, 230 North St., Buffalo, N.Y.; Carl A. Weber, 759 West Delavan Ave., Buffalo, N.Y.; Harry Yates, 1243 Delaware Ave., Buffalo, N.Y.; Henry C. Zeller, 1120 Delaware Ave., Buffalo, N.Y.

ANNUAL REPORT OF THE

PORT ARTHUR CIVIC RAILWAY COMPANY

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Corporation of the Municipality of the City of Port Arthur.

Name of Company: Port Arthur Civic Railway.

Date of Incorporation.....

Dates of subsequent legislation.....

Date of expiry of franchise.....

Amount paid to Municipality per year per mile of track	None
Further amounts, if any, paid to Municipality by way of percentage earnings	None
Total amount paid Municipality during year for franchise	None

Appraised value of plant and tracks for purposes of taxation.....No appraisal available
Total taxes paid during year to Municipality..... $208 17
Amount of aid received from Municipality, if any..... None
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant: $20 per H.P. per annum
Cost of power per kilowatt per hour..... $0.006
Cost of power per car mile..... $0.326
Average speed of cars.....12 miles per hour
State if power is purchased or generated by Company: Purchased from Hydro-Electric Power Commission in conjunction with other power used and distributed by the city.
Give number of power houses: Two in connection with local development on Current River and to reduce peak load.

General exhibit:

Gross earnings from operation			$193,744 19
Operating expenses			122,657 73
Net earnings from operation			$71,086 46
Miscellaneous income			
Total miscellaneous income			
Gross income above operating expenses			$71,086 46
Charges upon income accrued during the year:			
Interest on funded debt		$29,562 30	
Interest and discount on unfunded debts and loans		1,194 84	
Taxes, Municipal			
Taxes, Provincial			
Taxes, Commutation			
Rentals of leased railways			
Payments to sinking and other special funds:			
Sinking fund	$12,780 87		
Serial debenture principal	11,200 38		
		23,981 25	
Other deductions from income	$2,983 64		
Reserve for depreciation	677 95		
Reserve for bad debts	600 00		
		4,261 59	
Total charges and deductions from income			58,999 98
Net divisible income			$12,086 48
Dividends declared.....per cent. on $			
.....per cent.			
Total dividends declared			
Surplus or deficit for year ending December 31, 1923			
Amount of surplus or deficit, December 31, 1923			
Credits to profit and loss account during the year			
Total credits			
Debits to profit and loss account during the year			
Total debits			
Net amount credited to profit and loss			
Total surplus, December 31, 1923			$12,086 48

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	$192,016 72
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	111 71
" advertising in cars	1,065 76
" interest on deposits	.....
Other earnings from operation	550 00
Gross earnings from operation	$193,744 19
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks	$5,289 90
General office expenses and supplies	1,491 44
Legal expenses	173 11
Insurance	3,811 72
Switching charges, if any	.....
Other general expenses	.....
	.....
Maintenance of roadbed and buildings:	
Repair of roadbed and track	10,961 55
Repair of electric line construction	2,466 82
Repair of buildings	252 21
Maintenance of equipment:	
Repair of cars	11,679 31
Repair of electric equipment of cars	10,815 06
Wages, car house, car service, employees	4,735 65
Car service supplies	4,479 53
Superintendence, misc. shop expense	234 42
Tools equipment	83 73
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	20,143 50
Wages and compensation of persons employed in conducting transportation	35,174 28
Superintendence, traffic mgr., etc	4,788 85
Removal of snow and ice	377 61
Damages for injuries to persons and property	240 15
Tolls for trackage over other railways	.....
Miscellaneous operating expense	2,077 43
Other transportation expenses	2,381 46
Total operating expenses	$122,657 73

Property Accounts—Additions and Deductions during the Year.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....

Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	$469,893 61	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		$469,893 61
Cost of equipment:		
Passenger cars and other rolling stock	$152,219 70	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		152,219 70
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	$34,700 00	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		34,700 00
Other permanent property:		
Car barns	$30,000 00	
Car barn machinery	22,000 00	
Sundry properties and improvements	19,639 56	
Total cost of other permanent property owned		71,639 56
Total permanent investments		$128,452 87
Less serial debenture reserve		105,279 71
		$623,173 16
Cash and current assets:		
Cash	$42,824 13	
Bills and accounts receivable	2,809 94	
Sinking and other special funds	312,141 38	
Other cash and current assets:		
City of Port Arthur	51,681 70	
Total cash and current assets		$409,457 15

Miscellaneous assets:		
Materials and supplies	$16,774 96	
Other assets and property: ticket funds	1,270 00	
Prepaid insurance premiums	2,548 09	
Total miscellaneous assets		$20,593 05
Profit and loss balance—Deficit		.....
Total		$1,053,223 36

Figures on this page making up total of $623,173.16 are approximate as to distribution under the several headings.

Liabilities:		
Debenture debt		$603,533 60
Capital expenditure not covered by debenture issues		19,639 56
Total capital stock		$623,173 16
Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	$3,029 84	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Accounts payable	1,045 83	
Tickets sold but not used	14,372 10	
Interdepartmental account	24,415 49	
Total current liabilities		42,863 26
Accrued liabilities:		
Interest accrued and not yet due	$13,358 78	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Serial debenture principal accrued	4,870 13	
Total accrued liabilities		18,228 91
Sinking and other special funds:		
Reserve for bad debts	$583 00	
Sinking fund	201,176 28	
Depreciation fund	71,212 57	
Accident fund	66,067 88	
Fire loss fund	17,831 82	
Total sinking and other special funds		356,871 55
Profit and loss balance—Surplus		12,086 48
Total		$1,053,223 36

STREET RAILWAY DEPARTMENT.

Sinking Fund Debentures, December 31, 1923.

B/L No.	Rate of Interest	Maturity	Amount		Interest
	Per cent.				
367	5	May 1, 1924	$12,000 00		....
1298	5	November 1, 1924	22,000 00		....
522	5	February 1, 1926	12,500 00		....
1049	5	January 1, 1929	33,000 00		....
792	5	January 1, 1932	1,400 00		....
966	5	January 1, 1933	6,550 00		....
657	5	May 1, 1933	7,000 00		....
964	5	January 1, 1933	32,400 00		....
1149	5	January 1, 1934	35,000 00		....
12	5	August 1, 1937	55,000 00		....
15	5	August 1, 1937	18,000 00		....
298	5	February 1, 1939	9,500 00		....
301	5	January 1, 1939	28,500 00		....
340	4½	September 1, 1939	1,284 00		....
450/481	4½	July 1, 1940	10,000 00		....
458/481	4½	July 1, 1940	12,000 00		....
488	4½	July 1, 1940	75,000 00		Interest
489	4½	July 1, 1940	15,000 00		paid
571	4½	July 1, 1941	17,250 00		in full
756	5	July 1, 1942	11,000 00		....
754	5	January 1, 1942	5,600 00		....
766	5	January 1, 1942	58,500 00		....
790	5	January 1, 1942	21,000 00		....
791	5	January 1, 1942	11,500 00		....
851	5	July 1, 1942	82,200 00		....
857	5	July 1, 1942	34,000 00		....
858	5	July 1, 1942	4,300 00		....
				$631,484 00	$27,518 59
		Unexpended portions of Debenture Issues....		63,370 69	
				$568,113 31	
		Special Debentures.			
5	5	July 8, 1927	$4,268 05		....
341	4½	August 16, 1924	463 35		....
358	5	October 1, 1924	2,018 60		....
359	5	October 1, 1924	688 16		....
368	5	November 8, 1924	275 26		....
516	5	February 1, 1926	2,623 64		....
601	5	September 1, 1926	3,935 32		....
642	5	November 1, 1926	3,672 95		....
760	4½	March 4, 1927	2,171 30		....
820	4½	July 1, 1927	5,344 77		....
923	5	November 1, 1927	1,878 93		....
968	5	January 1, 1928	5,005 32		....
928	5	November 1, 1927	3,074 64		....
				$35,420 29	$2,043 71
		Total		$603,533 60	$29,562 30

Sinking and Other Special Funds.

Sinking Fund, December 31, 1922	$184,857 14	
Additions in 1923	16,319 14	
Total as of December 31, 1923		$201,176 28
Depreciation Fund, December 31, 1922	$67,264 49	
Additions in 1923	3,948 08	
Total as of December 31, 1923		71,212 57

Accident Fund, December 31, 1922		$65,540 06	
Additions in 1923	$3,287 82		
Deductions for accidents	2,760 00		
Net addition 1923		527 82	
Total as of December 31, 1923			$66,067 88
Fire Loss Fund, December 31, 1923		$17,248 62	
Additions in 1923		583 20	
Total as of December 31, 1923			17,831 82
December 31, 1923, total			$356,288 55

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	$3,163,863
Number carried per mile of main railway track operated	.....
Number of car miles run	613,548
Average number of persons employed	48
If the Company commenced operations during the year, give the date	.....
Average amount received from each passenger	6.06
Amount of passenger earnings per mile of road	9,717.14
Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	18	3	...	....	1	...	...	...	. .	...	...	2	...	18	10	13
Open passenger cars	...	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	12.43	.....	.....	.....	.....
Length of second main track	6.10	.....	.....	.....	.....
Total length of main track	18.53	.....	.....	.....	.....
Length of sidings, switches, etc.	1.04	.....	.....	.....	.....
Total, computed as single track	19.57	.....	.....	.....	19.57
Length of line under construction	.....	.....	.....	.....	.....

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Description Road Bed, Etc.

Rails		Weight yer yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
.....	.....	60 lbs.	.....	2,000	.....
.....	.....	80 lbs.	.....	2,000	.....

Names of the several cities and towns in which the railways operated by the Company are located: Port Arthur.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With Canadian National Railway, double track main line	.....	Derails and 1 flagman	2	2
No. junctions with other railways	.....	.....	.....	.....
No. of overhead bridges	.....	.....	.....	.....
No. of highway crossings	.....	.....	.....	.....
Height of overhead bridges above rail level	.....	.....	.....	.....
Radius of sharpest curve	.....	.....	.....	.....
No. of feet per mile of heaviest gradient	.....	.....	.....	.....
Gauge of railway	.....	.....	.....	.....
Width of devil strip	.....	.....	.....	.....
Total number of tracks at crossings			.....	.....

Number of above crossings at which frogs are inserted in the tracks.....

GENERAL REMARKS AND EXPLANATIONS.

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SUMMARY OF ACCIDENTS TO PROPERTY.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	.....	1	2	1	.....	.....
Damage to property of Municipality	.....	.....	.....	.....	.....	.....
Damage to private property	.....	1	.....	1	.....	10
Total	.....	2	2	2	.....	10

Total amount paid during year for damages caused by accidents $2,760.00.

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers	.....	.....	.....	.....	.....	.....
Employees	.....	.....	.....	.....	.....	.....
Other persons	.....	.....	.....	1	.....	.....
Totals	.....	.....	.....	1	.....	.....

STATEMENT OF EACH ACCIDENT.

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WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages
Inspectors	2	12	1 at $155.00 per mo. 1 at $142.00 per mo.
Conductors—Motormen	22	9½	1st year, $4.70; 2nd year, $4.99; 3rd year, $5.22½.
Starters	1	9	$145.00 per month.
Roadmen	1	9	$4.50 per day.
	5	9	$4.05 per day.
Linemen	.....	.....	.....
Engineers	.....	.....	.....
Blacksmiths	.....	.....	.....
Firemen	.....	.....	.....
Electricians	.....	.....	.....
Armchair Winders	1	9	$140.00 per month.
Machinists and mechanics	1	.....	$175.00 per month.
	4	9	$5.40 per day.
Car cleaners	4	9	$4.95 per day.
Average number of employees	44	.....	.....
Watchmen	1	9	$3.25 per day.
Switchmen and crossing tenders	.....	.....	.....

CORPORATE ORGANIZATION.

Corporate name and address of the Company: The Public Utilities Commission of the City of Port Arthur, Whalen Building, Port Arthur.

Names and business address of principal officers: Chairman, Malcolm C. Campbell, Port Arthur; Treasurer, Franklin D. Jackson, Port Arthur; Clerk of Corporation, Thomas F. Milne, Port Arthur; General Counsel, Donald J. Cowan, Port Arthur; Auditor, MacIntosh, Cole & Robertson, Port Arthur; General Manager, Malcolm M. Inglis, Port Arthur.

Name of officer, and address, to whom correspondence regarding this report should be addressed, F. D. Jackson, Sec.-Treas., Port Arthur.

Names and residence of Public Utilities Commissioners: Malcolm C. Campbell, Port Arthur; James W. Crooks, mayor, Port Arthur; B. Tourtellot, Port Arthur; Roderick M. Young, Port Arthur; Chas. Miller, Port Arthur.

ANNUAL REPORT OF THE

SANDWICH, WINDSOR AND AMHERSTBURG RAILWAY

INCLUDING

WINDSOR AND TECUMSEH ELECTRIC RAILWAY COMPANY

Operated by Hydro-Electric Power Commission of Ontario.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Tecumseh, Riverside, Sandwich East, Ford, Walkerville, Windsor, Sandwich, Ojibway, Sandwich West, Anderdon, Amherstburg.

Name of Company: Sandwich, Windsor and Amherstburg Railway.

Date of Incorporation: 1871 and 1872.

Dates of subsequent legislation: Taken over by Hydro-Electric Power Commission of Ontario on April 1st, 1920, on behalf of the above Municipalities; Sandwich, March 24, 1931; Windsor, December 31, 1922; Walkerville, December 31, 1922; Ford, July 14, 1934; Amherstburg, concurrent with charter.

Date of expiry of franchise	.....
Amount paid to Municipality per year per mile of track	.....
Further amounts, if any, paid to Municipality by way of percentage earnings	.....
Total amount paid Municipality during year for franchise	.....
Appraised value of plant and tracks for purposes of taxation	Taxable on land only.
Total taxes paid during year to Municipality	$3,360 00
Amount of aid received from Municipality, if any	.....
Power consumed per car mile in kilowatt hours	2.5 K.W.H.
Cost per horse power for motive power used in operating plant	Power purchased
Cost of power per kilowatt per hour	Not available.
Cost of power per car mile	.039 cents
Average speed of cars	8.3 miles per hour
State if power is purchased or generated by Company:	Purchased.
State if power is generated by steam or water power	
Give number of power houses	

General exhibit:

Gross earnings from operation		$714,314 19
Operating expenses		513,762 22
Net earnings from operation		$200,551 97
Miscellaneous income:		
From investments		$509 50
Total miscellaneous income		.....
Gross income above operating expenses		$201,061 47
Charges upon income accrued during the year:		
Interest on funded debt	$153,433 00	
Interest and discount on unfunded debts and loans	.....	
Taxes, Municipal	3,360 00	
Taxes, Provincial	.....	
Taxes, Commutation	.....	
	.....	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		156,793 00
Net divisible income		$44,268 47
Dividends declared .....per cent. on $	.....	
.....per cent.	.....	
Total dividends declared		.....
Surplus for the year ending December 31, 1923		$44,268 47
Amount of surplus, December 31, 1922		11,396 50
Credits to profit and loss account during the year	.....	
Total credits		.....
Debits to profit and loss account during the year		.....
Adjustment of 1922 interest		822 02
Total debits	.....	
Net amount credited to profit and loss		.....
Total surplus, December 31, 1923		$54,842 95

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	$646,970 64
" carriage of mails	3,142 51
" carriage of express and parcels	1,793 06
" carriage of freight	54,399 68
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	605 73
" advertising in cars	3,841 57
" interest on deposits	.....
Other earnings from operation:	
Car service	3,561 00
Gross earnings from operation	$714,314 19
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$19,529 88
General office expenses and supplies	18,904 81
Legal expenses	60 00
Insurance	29,823 93
Advertising	690 33
Other general expenses:	
Pensions	1,119 32
Valuation expeuses	1,779 54
Stationery and printing	7,075 90
Maintenance of roadbed and buildings:	
Repair of roadbed and track	38,000 80
Repair of electric line construction	10,595 66
Repair of buildings	2,552 37
Maintenance of equipment:	
Repair of cars	50,569 65
Repair of electric equipment of cars	28,190 01
Repair of miscellaneous equipment	4,677 03
Provender and stabling	551 25
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	71,538 91
Wages and compensation of persons employed in conducting transportation	215,113 61
Removal of snow and ice	.....
Damages for injuries to persons and property	177 98
Tolls for trackage over other railways	47 00
Rentals of buildings and other property	3,733 58
Other transportation expenses:	
Materials, etc.	7,795 16
Rent of equipment	1,235 50
Total operating expenses	$513,762 22

Property Accounts—Additions and Deductions during the Year.

Additions to railway:		
Extension of tracks (length 19,578 feet)	$371,869 57	
New electric line construction (length, 14,420 feet)	18,262 95	
Other additions to railway: interest during construction	3,987 21	
Total additions to railway		$394,119 73
Additions to equipment:		
Additional cars (5 in number)	$64,512 93	
Electric equipment of same	40,257 11	
Other additional rolling stock	.....	
Other additions to equipment:		
Auto truck	1,033 15	
Shop tools	117 90	
Total additions to equipment		105,921 09

Additions to land and buildings:		
Additional land necessary for operation of railway (credit)	$14 32	
New electric power stations, including machinery, etc.	8,496 04	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	4,502 07	
Total additions to land and buildings		$12,983 79
Additions to other permanent property:		
Total additions to other permanent property		.....
Total additions to property accounts		$513,024 61
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Total deductions from property accounts		.....
Net addition to property accounts for the year		$513,024 61

General Balance Sheet.

Assets:		
Cost of railway (details not available.)		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$3,233,801 99
Cash and current assets:		
Cash	$18,424 70	
Bills and accounts receivable	7,343 89	
Sinking and other special funds	.....	
Other cash and current assets:		
Interest and rents receivable	1,575 00	
Discount on bonds	42,657 10	
Total cash and current assets		70,000 69
Miscellaneous assets:		
Materials and supplies	$102,102 99	
Other assets and property:		
Deferred expenses	11,347 43	
Total miscellaneous assets		113,450 42
Profit and loss balance—Deficit		.....
Total		$3,417,253 10

Liabilities:			
Capital stock, common			$397,000 00
Capital stock, preferred			.....
Total capital stock			$397,000 00
Funded debt			189,000 00
Real estate mortgages			.....
Current liabilities:			
Loans and notes payable	$1,410,034 76		
Audited vouchers and accounts	27,362 79		
Salaries and wages	.....		
Dividends not called for	.....		
Matured interest coupons unpaid	.....		
Rentals due and unpaid	.....		
Miscellaneous current liabilities: Premium on bonds	70,015 32		
Total current liabilities			$1,507,412 87
Accrued liabilities:			
Interest accrued and not yet due	$17,325 00		
Taxes accrued and not yet due	.....		
Rentals accrued and not yet due	.....		
Miscellaneous accrued liabilities:			
Unredeemed tickets	7,832 70		
Total accrued liabilities			25,157 70
Sinking and other special funds:			
General reserve	$1,243,839 58		
Total sinking and other special funds			1,243,839 58
Profit and loss balance—Surplus			54,842 95
Total			$3,417,253 10

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital stock:			
Capital stock authorized by law, common, S.W. & A. Ry.	$500,000 00		
Capital stock authorized by law, preferred, W. & T. E. Ry.	100,000 00		
Total capital stock authorized by law	$600,000 00		
Capital stock authorized by votes of company, common	.....		
Capital stock authorized by votes of company, preferred	.....		
Total capital stock authorized by vote	.....		
Capital stock issued and outstanding, common	$397,000 00		
Capital stock issued and outstanding, preferred	.....		
Total capital stock outstanding			$397,000 00
Amount paid in on.....shares not yet issued			.....
Amount paid in on stock to be exchanged			.....
Scrip convertible into stock			.....
Other paid stock liability			.....
Total capital stock liability			$397,000 00
Number of shares issued and outstanding, common	3,970		
Number of shares issued and outstanding, preferred	.....		
Total number of shares outstanding	3,970		
Number of stockholders, common	9		
Number of stockholders, preferred	.....		
Total number of stockholders	9		
Amount of stock held, common		.....	
Amount of stock held, preferred		.....	
Total stock held		.....	

BOND MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Railway from Walkerville to Tecumseh	5	Sept. 2, 1927	$189,000 00	$9,450 00
Totals			$189,000 00	$9,450 00

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
See page 8 Bond Mortgage	5	Sept. 2, 1927	$189,000 00	$9,450 00
Totals			$189,000 00	$9,450 00

SINKING AND OTHER SPECIAL FUNDS.

Amount, December 31, 1922, of General Reserve fund	$1,253,839 58
of fund	
Total, December 31, 1921	
Additions during the year to fund	
to fund	
Total, including additions	$1,253,839 58
Deductions during the year from fund	
from fund	10,000 00
Total sinking and other special funds, December 31, 1923	$1,243,839 58

VOLUME OF TRAFFIC—EQUIPMENT, ETC.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	10,835,207
Number carried per mile of main railway track operated	213,585
Number of car miles run	1,808,024
Average number of persons employed	about 240
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	5.7 cents
Amount of passenger earnings per mile of road	12,573.00
Freight:	
Number of tons freight earning revenue	21,991
Number of tons freight carried per mile of road	434
Average amount received for each ton of freight	2.47 cts.
Average receipts per ton of freight per mile	26 cts.
Average rate of speed of passenger cars per hour	8.5
Average rate of speed of freight cars per hour	7

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	48	8	...	3	....	4	...	...	...	...	63	...	...	48	39	17
Open passenger cars	...	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

MISCELLANEOUS EQUIPMENT.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles:	
Overhead trucks	2
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

RAILWAY OWNED, LEASED AND OPERATED (BY ELECTRIC POWER).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	All	.....	.....	.....	36.370
Length of second main track	.....	.....	.....	.....	9.198
Total length of main track	.....	.....	.....	.....	45.568
Length of sidings, switches, etc.	.....	.....	.....	.....	5.163
Total, computed as single track	.....	.....	.....	.....	50.731
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
.....	.....	56	.....	2,640	.....
.....	.....	60	.....	.....	.....
.....	.....	80	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: Tecumseh, Riverside, Sandwich East, Ford, Walkerville, Windsor, Sandwich, Ojibway, Sandwich West, Anderdon, Amherstburg.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How Protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (12 in number), viz.:—				
With G. T. Ry., Sandwich St., Ford City..	1	.....	3	1
With G. T. Ry., Sandwich St., Ford City..	2	.....	2	1
With G. T. Ry., Sandwich St., Ford City..	.....	half interlocked	1	1
With W. E. & L. S. Erie, Howard St., Windsor.....	1	.....	1	2
With W. E. & L. S. Erie, Wyandotte St., Windsor.....	1	.....	1	2
With Essex Terminal Ry., Wellington Ave., Windsor.....	.....	interlocked	1	1
With Essex Terminal Ry., Bedford St., Sandwich	.....	interlocked	1	1
With Essex Terminal Ry., Lot 56, Sandwich West.....	.....	interlocked	1	2
With Essex Terminal Ry., Main St., Ojibway.....	1	.....	1	2
With Essex Terminal Ry., Lot 38, Con. 1, Sandwich.....	.....	interlocked	1	2
With Michigan Central Ry., Wellington St., Windsor.....	.....	interlocked	1	1
With Michigan Central Ry., Amherstburg	.....	half "	1	1
No. junctions with other railways.....	2	.....	.....	.....
No. of overhead bridges.....	.....	.....	.....	.....
No. of highway crossings.....	.....	.....	.....	.....
Height of overhead bridges above rail level.	.....	.....	.....	.....
Radius of sharpest curve.....	33 ft.	.....	.....	.....
No. of feet per mile of heaviest gradient ...	369	.....	.....	.....
Gauge of railway.....	48½	.....	.....	.....
Width of devil strip.....	51 paved 93½ open	.....	.....	.....
Total number of tracks at crossings.....			15	17
Number of above crossings at which frogs are inserted in the tracks.....				6

GENERAL REMARKS AND EXPLANATIONS.

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SUMMARY OF ACCIDENTS TO PROPERTY.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		28				28
Employees		27				27
Other persons		58	1		1	58
Totals		113	1		1	113

STATEMENT OF EACH ACCIDENT.

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WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors	3	10	$160.00 t	o $175.00	per mth.
Conductors	113	9	4 05	4 50	4 95
Motormen		9			
Starters	2	12	150 00	per mth.	
Roadmen	119	10	4 00		
Linemen	10	10	5 00	to 7 00	
Engineers	2	10	10 00		
Blacksmiths	1	9	6 05		
Firemen					
Electricians	3	9	4 50	to 6 00	
Armature winders	1	9	6 05		
Machinists and mechanics	16	9	5 40	to 6 75	
Car cleaners	6	9	4 50	to 5 00	
Average number of employees	240				
Watchmen	3	12	4 00		
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Sandwich, Windsor and Amherstburg Railway, Windsor, Ont.

Names and business address of principal officers: President, Lt.-Col. Sir Adam Beck, Kt., LL.D., Toronto; Commissioner, Hon. J. R. Cooke, M.P.P., Toronto; Treasurer, J. W. Gilmour, Toronto; Chief Engineer, F. A. Gaby, Toronto; Secretary, W. W. Pope, Toronto; Auditor, G. F. Clarkson, Toronto; General Superintendent, W. R. Robertson, Toronto; Superintendent, A. F. McGill.

Name of officer and address, to whom correspondence regarding this report should be addressed: W. G. Pierdon, Accountant, Toronto.

Names and residence of Board of Directors: Lt.-Col. Sir Adam Beck, Kt., LL.D., Toronto; Hon. J. R. Cooke, M.P.P., Toronto; J. W. Gilmour, Toronto; W. W. Pope, Toronto; F. A. Gaby, Toronto; W. G. Pierdon, Toronto; E. A. Hugill, Toronto; I. B. Lucas, Toronto.

ANNUAL REPORT OF THE

SARNIA STREET RAILWAY COMPANY, LIMITED,

FOR THE YEAR ENDING DECEMBER 31, 1923.

General information:

Name of Municipality or Municipalities in which railway operates: City of Sarnia, Township of Sarnia and Village of Point Edward.	
Name of Company: Sarnia Street Railway Company, Limited.	
Date of Incorporation: March 24, 1874.	
Dates of subsequent legislation	
Date of expiry of franchise: January 1, 1931.	
Amount paid to Municipality per year per mile of track	Nil
Further amounts, if any, paid to Municipality by way of percentage earnings	Nil
Total amount paid Municipality during year for franchise	Nil
Appraised value of plant and tracks for purposes of taxation	$43,255 00
Total taxes paid during year to Municipality	$1,882 76
Amount of aid received from Municipality, if any	Nil
Power consumed per car mile in kilowatt hours	.....
Cost per horse power for motive power used in operating plant	.....
Cost of power per kilowatt per hour: First 50 hours at 3.1 cents; second 50 hours at 2 cents; balance at 1.5 cents.	
Cost of power per car mile	.....
Average speed of cars	12 miles
State if power is purchased or generated by Company: Purchased.	
State if power is generated by steam or water power: Hydro-Electric System.	
Give number of power houses: One.	

General exhibit:

Gross earnings from operation		$85,065 92
Operating expenses		66,254 17
Net earnings from operation		$18,811 75
Miscellaneous income	.....	
Total miscellaneous income		.....
Gross income above operating expenses		$18,811 75
Charges upon income accrued during the year:		
Interest on funded debt	$5,939 50	
Interest and discount on unfunded debts and loans	960 83	
Taxes, Municipal $1,679 48		
Taxes, Provincial 203 28		
Taxes, Township 287 22		
	2,169 98	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		9,070 31
Net divisible income		$9,741 44

Dividends declared.....per cent. on $.....	
.....per cent. on	
Total dividends declared.....	.....
Surplus for the year ending December 31, 1922.....	$64,086 26
Amount of surplus, December 31, 1921.....	.....
Credits to profit and loss account during the year.....	
Total credits.....	.....
Debits to profit and loss account during the year.....	
Total debits.....	.....
Net amount credited to profit and loss.....	.....
Total surplus, Dec. 31, 1923	$73,827 70

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried.....	$63,744 64
" carriage of mails.....	2,212 00
" carriage of express and parcels.....	3,310 30
" carriage of freight.....	10,547 96
" tolls for use of tracks by other companies.....	.....
" rentals of buildings and other property.....	1,085 00
" advertising in cars.....	400 00
" interest on deposits.....	.....
Other earnings from operation:	
Commission as Can. Nat. agents.....	3,151 10
Miscellaneous.....	614 92
Gross earnings from operation.....	$85,065 92
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants.....	$5,758 00
General office expenses and supplies.....	825 26
Legal expenses.....	.....
Insurance.....	1,174 79
Switching charges, if any.....	.....
Other general expenses:	
Discount, printing and advertising and ticket printing.....	1,191 10
Maintenance of roadbed and buildings:	
Repair of roadbed and track.....	4,625 24
Repair of electric line construction.....	304 66
Repair of buildings.....	515 25
Maintenance of equipment:	
Repair of cars: Wages, electricians.....	5,409 40
Repair of electric equipment of cars.....	4,630 65
Repair of miscellaneous equipment: trucks.....	1,447 26
Provender and stabling.....	914 80
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net...	10,359 63
Wages and compensation of persons employed in conducting transportation.....	16,554 68
Removal of snow and ice.....	.....
Damages for injuries to persons and property.....	.....
Tolls for trackage over other railways.....	.....
Rentals of buildings and other property.....	.....
Other transportation expenses: Park, shop, wages, teamsters, watchman, and miscellaneous.....	15,674 26
Total operating expenses.....	$69,384 98

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet).....	.....	
New electric line construction (length.....feet).....	.....	
Other additions to railway: Pavement, etc.....	$798 89	
Total additions to railway.....		$798 89
Additions to equipment:		
Additional cars (.....in number).....	.....	
Electric equipment of same.....	.....	
Other additional rolling stock.....	.....	
Other additions to equipment: Air brake equipment, motor truck.....	$1,310 26	
Total additions to equipment.....		$1,310 26
Additions to land and buildings:		
Additional land necessary for operation of railway.....	.....	
New electric power stations, including machinery, etc.....	.....	
Additional equipment of power stations.....	.....	
Other new buildings necessary for operation of railway.....	.....	
Total additions to land and buildings.....		.....
Additions to other permanent property:		
Wagon shed.....	$90 11	
Total additions to other permanent property.....		90 11
Total additions to property accounts.....		$2,199 26
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):	.....	
Total deductions from property accounts.....		.....
Net addition to property accounts for the year.....		$2,199 26

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks.....	$111,014 80	
Electric line construction, including poles, wiring, feeder lines, etc.....	17,899 44	
Interest accrued during construction of railway.....	.....	
Engineering and other expenses incident to construction....	.....	
Other items of railway cost.....	.....	
Total cost of railway owned.....		$128,914 24
Cost of equipment:		
Passenger cars and other rolling stock.....	$26,025 43	
Electric equipment of same.....	39,907 61	
Other items of equipment.....	.....	
Total cost of equipment owned.....		65,933 04
Cost of land and buildings:		
Land necessary for operation of railway: Park.....	$19,643 54	
Electric power stations, including equipment.....	20,847 28	
Other buildings necessary for operation of railway: Office and barns.....	28,043 31	
Total cost of land and buildings owned.....		68,534 13
Other permanent property.....	.....	
Total cost of other permanent property owned.....		.....
Total permanent investments.....		$263,381 41

Cash and current assets:		
Cash	$2,146 29	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		$2,146 29
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—Deficit		.....
Total		$265,527 70
Liabilities:		
Capital stock, common		$90,000 00
Capital stock, preferred		.....
Total capital stock		$90,000 00
Funded debt		90,700 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	$11,000 00	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		11,000 00
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Total sinking and other special funds		.....
Profit and loss balance—Surplus		$73,827 70
Total		$265,527 70

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital stock:		
Capital stock authorized by law, common	$100,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$100,000 00	
Capital stock authorized by votes of company, common	$90,000 00	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	$90,000 00	
Capital stock issued and outstanding, common		$90,000 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$90,000 00

Amount paid in on.....shares not yet issued			.....
Amount paid in on stock to be exchanged			.....
Scrip convertible into stock			.....
Other paid stock liability			.....
Total capital stock liability			$90,000 00
Number of shares issued and outstanding, common	1,800		
Number of shares issued and outstanding, preferred	.....		
Total number of shares outstanding	1,800		
Number of stockholders, common	70		
Number of stockholders, preferred	.....		
Total number of stockholders	70		
Amount of stock held, common		$90,000 00	
Amount of stock held, preferred		.....	
Total stock held		$90,000 00	

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

FUNDED DEBT AND OTHER SPECIAL FUNDS.

FUNDED DEBT— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Five year debentures issued November 10, 1920, interest at 7 per cent., payable May 10 and November 10 in each year	7%	Nov. 10, 1925	$90,700 00	$5,939 50
Total	.....	.....	$90,700 00	$5,939 50

SINKING AND OTHER SPECIAL FUNDS.

Amount, December 31, 1922, of.....fund			.....
of.....fund			.....
Total, December 31, 1922			.....
Additions during the year to.....fund		.....	
to.....fund		.....	
Total, including additions			.....
Deductions during the year from.....fund		.....	
from.....fund		.....	
Total sinking and other special funds, December 31, 1923			.....

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.	
Number of passengers paying revenue carried during the year	1,118,713
Number carried per mile of main railway track operated	120,945
Number of car miles run	205,694
Average number of persons employed	30
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	5.69 cents
Amount of passenger earnings per mile of road	$6,891 31
Number of tons freight earning revenue	13,185
Number of tons freight carried per mile of road	.....
Average amount received for each ton of freight	80 cents
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	12 miles
Average rate of speed of freight cars per hour	.....

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	10	...	...	...	1	...	...	...	...	...	...	...	...	11	10	....
Open passenger cars	...	2	...	...	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	4
Other railway rolling stock	
Other highway vehicles	
Horses	4
Other items of equipment:	
Freight and baggage delivery wagons	5
Motor trucks	2

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	8¼	.....	.....	.....	.....
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	8¼	.....	.....	.....	.....
Length of sidings, switches, etc.	1	.....	.....	.....	.....
Total, computed as single track	9¼	.....	.....	.....	9¼ miles
Length of line under construction	.....	.....	.....	.....	.....

DESCRIPTION OF FREIGHT CARRIED FOR YEAR ENDING DECEMBER 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B. M.	Tons	Cords	Tons			

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
		56		2,112	
		60			
		70			

Names of the several cities and towns in which the railways operated by the Company are located: Sarnia and Point Edward.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (3 in number), viz.:—				
With Can. National Railways in City of Sarnia, at Exmouth Street, and St. Clair Avenue in Village of Point Edward		Derail and semaphore	1	1
With Can. National Railways on private right of way in Township of Sarnia	1		1	1
With Can. National Railway at Christina Street South in City of Sarnia		Derail and semaphore	1	1
No. junctions with other railways		None		
No. of overhead bridges		"		
No. of highway crossings		"		
Height of overhead bridges above rail level		"		
Radius of sharpest curve		90 degrees		
No. of feet per mile of heaviest gradient				
Gauge of railway		4 ft. 8½ in.		
Width of devil strip		5 ft.		
Total number of tracks at crossings			3	3

Number of above crossings at which frogs are inserted in the tracks

General Remarks and Explanations.

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.....

Summary of Accidents to Property.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property.....	.....	.....	.....	.....	.....	.....
Damage to property of Municipality.....	.....	.....	.....	.....	.....	.....
Damage to private property.....	.....	.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....	.....	.....

Total amount paid during year for damages caused by accidents.....

Accidents to Persons.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers.....	.....	.....	.....	.....	.....	.....
Employees.....	.....	.....	.....	.....	.....	.....
Other persons.....	.....	.....	.....	.....	.....	.....
Totals.....	.....	.....	.....	.....	.....	.....

Statement of Each Accident.

.....

.....

.....

Wages Street Railway Company or Radial Railway.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors and motormen	9	10	$4 00	$4 50	$4 50
Starters					
Roadmen	3	9	3 50	3 50	3 50
Linemen	1	10	4 50	4 50	4 50
Engineers					
Blacksmiths					
Firemen					
Electricians	1	10			5 50
Armature winders					
Machinists and mechanics	2	10	4 50		
Car cleaners	1	10	4 50	4 50	
Average number of employees	30				
Watchmen	1	10	4 00		
Switchmen and crossing tenders	4	8	2 00		

Corporate Organization.

Corporate name and address of the Company: Sarnia Street Railway Company, Limited, Sarnia, Ont.

Names and business address of principal officers: President, Robt. Mackenzie, Sarnia, Ont.; Vice-President, Randal Kenny, Sarnia, Ont.; Treasurer, G. E. Wadland, Sarnia, Ont.; General Counsel, LeSueur, McKinley, LeSueur & Dawson, Sarnia, Ont.; Auditors, H. W. Unsworth and W. G. Prangley, Sarnia, Ont.; General Manager, G. E. Wadland.

Name of officer, and address, to whom correspondence regarding this report should be addressed: G. E. Wadland, Manager and Secretary-Treasurer, Sarnia, Ont.

Names and residence of Board of Directors: Robt. Mackenzie, Sarnia, Ont.; Randal Kenny, Sarnia, Ont.; Chas. S. Ellis, Sarnia, Ont.; R. V. LeSueur, M.P., Sarnia, Ont.; W. R. Paul, Sarnia, Ont.; L. N. Phippen, Sarnia, Ont.; John E. Smallman, London.

ANNUAL REPORT OF THE

ST. THOMAS MUNICIPAL STREET RAILWAY

For the Year Ending December 31, 1923.

General information:

Name of Municipality or Municipalities in which railway operates: St. Thomas, Ont.
Name of Company: St. Thomas Municipal Street Railway.
Date of Incorporation.....
Dates of subsequent legislation.....
Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track..... $.....
Further amounts, if any, paid to Municipality by way of percentage earnings, % on $..... $.....
Total amount paid Municipality during year for franchise..... $.....
Appraised value of plant and tracks for purposes of Taxation..... $.....
Total taxes paid during year to Municipality..... $.....
Amount of aid received from Municipality, if any..... $ 10,000 00
Power consumed per car mile in kilowatt hours..... .....
Cost per horse power for motive power used in operating plant..... $1 25
Cost of power per kilowatt per hour: First 50 hours 1.3; second 50 hours .85, balance .11.
Cost of power per car mile..... .....
Average speed of cars.....10-12 miles per hour
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Hydro-Electric.
Give number of power houses: None.

General exhibit:		
Gross earnings from operation		$25,605 35
Operating expenses		44,738 72
Net deficit from operation		$19,133 37
Miscellaneous income:		
Total miscellaneous income		.....
Gross income above operating expenses		.....
Charges upon income accrued during the year:		
Interest on funded debt	$5,215 33	
Interest and discount on unfunded debts and loans	96 75	
Taxes, Municipal	.....	
Taxes, Provincial	.....	
Taxes, Commutation	.....	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		.....
Net divisible income		.....
Dividends declared.....per cent. on $	.....	
.....per cent. on	.....	
Total dividends declared		.....
Deficit for the year ending December 31, 1923		$19,133 37
Amount of deficit		.....
Credits to profit and loss account during the year	.....	
Total credits	.....	
Debits to profit and loss account during the year	.....	
Total debits	.....	
Net amount credited to profit and loss		.....
Total deficit, December 31, 1923		$19,133 37

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	$24,505 26
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" scrap rail, etc	548 07
" advertising in cars	473 84
" interest on deposits	30
Other earnings from operation:	
Welding and cutting	35 00
Switching	6 00
Sundries	36 88
Gross earnings from operation	$25,605 35
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$2,102 75
General office expenses and supplies	243 18
Legal expenses	.....
Insurance	1,775 24
Switching charges, if any: Watchmen at crossings	2,973 42
Other general expenses:	
Light, $68.40; custom, $8.34; telephone, $18.52; ticket dividend, $13.56; refund, $2.00	110 82

Maintenance of roadbed and buildings:	
Repair of roadbed and track and supplies	$993 29
Repair of electric line construction	96 60
Repair of buildings and supplies	463 43
Maintenance of equipment:	
Repair of cars	2,051 08
Repair of electric equipment of cars	.....
Repair of miscellaneous equipment	.....
Provender and stabling	.....
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	5,997 68
Wages and compensation of persons employed in conducting transportation	22,480 27
Removal of snow and ice	.....
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses:	
Appraisal, $123.05; O. D. interest, $96.75; stamp tax, $10.16; interest on funded debt, $5,215.33; advertising, $5.67	5,450 96
Total operating expenses	$44,738 72

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):	.....	.....
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	$59,250 00	
Electric line construction, including poles, wiring, feeder lines, etc.	3,000 00	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		$62,250 00

Cost of equipment:		
Passenger cars and other rolling stock	$16,700 00	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		$16,700 00
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		.....
Cash and current assets:		
Cash	.....	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		.....
Miscellaneous assets:		
Materials and supplies	$425 00	
Other assets and property	.....	
Total miscellaneous assets		425 00
Profit and loss balance—Deficit		.....
Total		$79,375 00
Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$110,323 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		.....
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Total sinking and other special funds		.....
Profit and loss balance—Surplus		.....
Total		$110,323 00

Capital Stock—Real Estate Mortgages.

Capital stock:

Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....
Amount paid in on .....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....

Funded Debt—Sinking and Other Special Funds.

Funded Debt—Description of bonds, etc.		Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Street Railway	1	4	May 6, 1928	$50,000 00	$2,000 00
	2	4	Oct. 7, 1924	.....	35 73
	3	5	June 1, 1932	13,403 23	728 04
	4	5	June 1, 1932	3,707 23	201 38
	5	5½	July 2, 1939	39,396 00	2,250 18
Totals		.....	.....	$106,506 46	$5,215 33

Sinking and Other Special Funds

Amount, December 31, 1922, of.....fund.....	.....
of.....fund.....	.....
Total, December 31, 1922.....	.....
Additions during the year to.....fund.....	.....
to.....fund.....	.....
Total including additions.....	.....
Deductions during the year from.....fund.....	.....
from.....fund.....	.....
Total sinking and other special funds, December 31, 1923.....	.....

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year.....	482,936
Number carried per mile of main railway track operated.....	.....
Number of car miles run.....	.....
Average number of persons employed.....	17
If the Company commenced operation during the year, give the date.....	
Average amount received from each passenger.....	5.3 cents
Amount of passenger earnings per mile of road.....	.....
Freight:	
Number of tons freight earning revenue.....	.....
Number of tons freight carried per mile of road.....	.....
Average amount received for each ton of freight.....	.....
Average receipts per ton of freight per mile.....	.....
Average rate of speed of passenger cars per hour.....	.....
Average rate of speed of freight cars per hour.....	.....

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped electric heaters
Box passenger cars.....	9	4	...	....	....	...	...	...	...	...	...	...	1	All	....	All
Open passenger cars.....	...	...	...	....	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock.....	
Other highway vehicles.....	
Horses.....	
Other items of equipment.....	

DESCRIPTION OF RAILWAY OWNED AND OPERATED

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	6½ miles				6½ miles
Length of second main track					
Total length of main track	6½ miles				
Length of sidings, switches, etc.	500 ft.				
Total, computed as single track					
Length of line under construction	None				

Description of Freight Carried For Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			

Description Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		

Names of the several cities and towns in which the railways operated by the Company are located: St. Thomas, Ont.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With London and Port Stanley Railway at Elm Street		Semaphore		
With London and Port Stanley Railway at Talbot Street		Watchman		
With Pere Marquette Railroad at Wilson Avenue		Watchman		
No. junctions with other railways				
No. of overhead bridges		3		
No. of highway crossings				
Height of overhead bridges above rail level		13 ft. 6 in.		
Radius of sharpest curve		45 degrees		
No. of feet per mile of heaviest gradient		3		
Gauge of railway		4 ft. 8½ in.		
Width of devil strip		4 ft. at sidings		
Total Number of Tracks at Crossings				

Number of above crossings at which frogs are inserted in the tracks.....

GENERAL REMARKS AND EXPLANATIONS.

.....

.....

.....

SUMMARY OF ACCIDENTS TO PROPERTY.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property						
Damage to property of Municipality						
Damage to private property						
Total						

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		2				
Employees		2				
Other persons		2				
Totals		6				6

STATEMENT OF EACH ACCIDENT.

.....

.....

.....

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors and motormen	10	8½	50c	same	same
Starters					
Roadmen	2	9	50c a	nd 55c	
Linemen	3	9	50c a	nd 60c	
Engineers					
Night barn man	1		$97 00	monthly	
Firemen					
Electricians	1	9	60c	same	same
Armature winders					
Machinists and mechanics					
Car cleaners					
Average number of employees	17				
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: St. Thomas Municipal Street Railway.

Names and business address of principal officers: Chairman committee, Mr. John Hanford; Treasurer, S. O. Perry, City Hall; Clerk of Corporation, W. B. Doherty, City Hall; Auditor, H. T. Gough, City Hall; General Manager and Superintendent, Chas. H. Johns, City Hall.

Name of officer, and address, to whom correspondence regarding this report should be addressed: City Hall.

Names and residence of Board of Directors: Mr. John Handford, 13 Margaret St., St. Thomas; George H. Sloggett, Mayor, City Hall, St. Thomas.

ANNUAL REPORT OF THE

SUDBURY, COPPER CLIFF SUBURBAN ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING DECEMBER 31, 1923.

General information:

Name of Municipality or Municipalities in which railway operates: Sudbury and Copper Cliff.
Name of Company: Sudbury, Copper Cliff Suburban Electric Railway.
Date of Incorporation.....
Dates of subsequent legislation.....
Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track.....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings, % on $..... $.....
Total amount paid Municipality during year for franchise..... $.....
Appraised value of plant and tracks for purposes of taxation.....
Total taxes paid during year to Municipality.....
Amount of aid received from Municipality, if any.....
Power consumed per car mile in kilowatt hours..... .0008
Cost per horse power for motive power used in operating plant..... $25 00
Cost of power per kilowatt per hour.....Flat rate as above
Cost of power per car mile..... .02 cents
Average speed of cars..... 10 miles per hour
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power.....
Give number of power houses.....

General exhibit:

Gross earnings from operation		$43,255 45
Operating expenses		35,409 58
Net earnings from operation		$7,845 87
Miscellaneous income	.....	
Total miscellaneous income		.....
Gross income above operating expenses		.....
Charges upon income accrued during the year:		
Interest on funded debt	$4,500 00	
Interest and discount on unfunded debts and loans	3,200 00	
Taxes, Municipal	.....	
Taxes, Provincial	.....	
Taxes, Commutation	.....	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		7,700 00
Net divisible income		$145 87
Dividends declared.....per cent. on $.....	.....	
.....per cent. on	.....	
Total dividends declared	.....	.....
Surplus for the year ending December 31, 1923		$145 87
Amount of surplus or deficit, December 31, 1922		.....
Credits to profit and loss account during the year	.....	
Total credits	.....	
Debits to profit and loss account during the year	.....	
Total debits	.....	
Net amount credited to profit and loss		.....
Total surplus, December 31, 1923		$145 87

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	$42,689 86
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	.....
" advertising in cars	560 59
" interest on deposits	.....
Other earnings from operation: Rent	5 00
Gross earnings from operation	$43,255 45
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$4,624 95
General office expenses and supplies	141 88
Legal expenses	.....
Insurance	2,724 32
Switching charges, if any	.....
Taxes	137 60
Interest	58 28
Other general expenses	.....
Maintenance of roadbed and buildings:	
Repair of roadbed and track	2,079 83
Repair of electric line construction	22 90
Repair of buildings	138 26
Maintenance of equipment:	
Repair of cars	3,397 13
Repair of electric equipment of cars	.....
Repair of miscellaneous equipment	30 00
Crossings	97 59
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	5,000 40
Wages and compensation of persons employed in conducting transportation	13,159 60
Removal of snow and ice	1,329 29
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses	2,467 55
Total operating expenses	$35,409 58

Property Accounts—Additions and Deductions during the Year.

Additions to railway:	
Extension of tracks (length.....feet)	.....
New electric line construction (length.....feet)	.....
Other additions to railway	.....
Total additions to railway	.....
Additions to equipment:	
Additional cars (.....in number)	.....
Electric equipment of same	.....
Other additional rolling stock	.....
Other additions to equipment	.....
Total additions to equipment	.....

Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	$134,225 75	
Electric line construction, including poles, wiring, feeder lines, etc.	21,729 42	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost: Franchise	100,000 00	
Total cost of railway owned		$255,955 17
Cost of equipment:		
Passenger cars and other rolling stock	$35,388 65	
Electric equipment of same	.....	
Other items of equipment: Generators (2)	20,182 06	
Total cost of equipment owned		55,570 71
Cost of land and buildings:		
Land necessary for operation of railway	$9,561 60	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		9,561 60
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		
Cash and current assets:		
Cash	$3,540 50	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		$3,540 50
Miscellaneous assets:		
Materials and supplies	$3,225 87	
Other assets and property	.....	
Total miscellaneous assets		3,225 87
Profit and loss balance—Deficit		.....
Total		$327,853 85

Liabilities:		
Capital stock, common		$110,500 00
Capital stock, preferred		62,600 00
Total capital stock		$173,100 00
Funded debt		.....
Real estate mortgages		75,000 00
Current liabilities:		
Loans and notes payable	$40,000 00	
Audited vouchers and accounts	4,710 61	
Salaries and wages	857 17	
Dividends not called for	.....	
Matured interest coupons unpaid	4,500 00	
Rentals due and unpaid	.....	
Miscellaneous current liabilities: Interest	3,200 00	
Total current liabilities		53,267 78
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Total sinking and other special funds		26,486 07
Profit and loss balance—Surplus		.....
Total		$327,853 85

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital stock:		
Capital stock authorized by law, common	$187,400 00	
Capital stock authorized by law, preferred	62,600 00	
Total capital stock authorized by law	$250,000 00	
Capital stock authorized by votes of company, common	$187,400 00	
Capital stock authorized by votes of company, preferred	62,600 00	
Total capital stock authorized by vote	$250,000 00	
Capital stock issued and outstanding, common		$110,500 00
Capital stock issued and outstanding, preferred		62,600 00
Total capital stock outstanding		$173,100 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....

Number of shares issued and outstanding, common	1105	
Number of shares issued and outstanding, preferred	626	
Total number of shares outstanding	1,731	
Number of stockholders, common	26	
Number of stockholders, preferred	22	
Total number of stockholders	48	
Amount of stock held, common	$110,500 00	
Amount of stock held, preferred	62,600 00	
Total stock held	$173,100 00	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Total assets	8%		$40,000 00	$3,200 00
Totals			$40,000 00	$3,200 00

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of Bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
20 year first mortgage bonds guaranteed by the Town of Sudbury	6%	August, 1936	$75,000 00	$4,500 00
Totals			$75,000 00	$4,500 00

Sinking and Other Special Funds.

Amount, December 31, 1923, of ..... fund		
of ..... fund		
Total, December 31, 1923		
Additions during the year to ..... fund		
to ..... fund		
Total, including additions		
Deductions during the year from ..... fund		
from ..... fund		
Total sinking and other special funds, December 31, 1923		Nil.

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	562,037
Number carried per mile of main railway track operated	71,144
Number of car miles run	106,832
Average number of persons employed	10
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	7.4 cents
Amount of passenger earnings per mile of road	$5,403 77
Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	10
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Open passenger cars	5	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	7.9	...	...	7.9	...
Length of second main track	...	...	...	...	...
Total length of main track	7.9	...	...	7.9	...
Length of sidings, switches, etc.	...	...	...	...	...
Total, computed as single track	...	...	...	...	...
Length of line under construction	...	...	...	...	...

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
83,424	.....	80 lb.	.....	3,520	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located: Sudbury and Copper Cliff.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With C.P.R. at Elm Street	1	.....	1	.....
With C.P.R.	.....	Interlocking plant	.....	.....
With C.P.R. at Copper Cliff Road	1	.....	1	.....
No. junctions with other railways	.....	.....	.....	.....
No. of overhead bridges	1	.....	.....	.....
No. of highway crossings	4	.....	.....	.....
Height of overhead bridges above rail level	15 ft.	.....	.....	.....
Radius of sharpest curve	90 degrees	.....	.....	.....
No. of feet per mile of heaviest gradient	.....	.....	.....	.....
Gauge of railway	4 ft. 8½ in.	.....	.....	.....
Width of devil strip	.....	.....	.....	.....
Total number of tracks at crossings			2	.....

Number of above crossings at which frogs are inserted in the tracks..... None

GENERAL REMARKS AND EXPLANATIONS.

.....
.....
.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	.....	.....	.....	.....	.....	.....
Damage to property of Municipality	.....	.....	.....	.....	.....	.....
Damage to private property	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

Total amount paid during year for damages caused by accidents..... Nil

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons			1		1	
Totals			1		1	

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANY OR RADIAL RAILWAY.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen	6	9			37½c.
Starters					
Roadmen	1	10			45c.
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics	3	10	2 at $125;	1 at $175	mo.
Car cleaners					
Average number of employees	10	10	$130 mo.		
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Sudbury, Copper Cliff Suburban Electric Railway, Sudbury, Ont.

Names and business address of principal officers: President, J. G. Mackay, Sudbury, Ont.; Vice-President, W. J. Laforest, Sudbury, Ont.; Treasurer, C. Bibby, Sudbury, Ont.; Clerk of Corporation, C. Bibby, Sudbury, Ont.; General Counsel, C. McCrea, Sudbury, Ont.; Auditor, W. J. Ross, C.A., Sudbury, Ont.; General Manager, L. O'Connor, Sudbury, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: C. Bibby, Secretary-Treasurer, Sudbury, Ont.

Names and residence of Board of Directors: J. G. Mackay, Sudbury, Ont.; Wm. J. Laforest, Sudbury, Ont.; L. O'Connor, Sudbury, Ont.; C. McCrea, Sudbury, Ont.; J. C. Clemens, Sudbury, Ont.; J. A. Laberge, Sudbury, Ont.

ANNUAL REPORT OF THE

THURLOW RAILWAY COMPANY

FOR THE YEAR ENDING DECEMBER 31, 1923.

General information:

Name of Municipality or Municipalities in which railway operates: Township of Thurlow, County of Hastings, Ontario.
Name of Company: Thurlow Railway Company.
Date of incorporation: April 11, 1907.
Dates of subsequent legislation.....
Date of expiry of franchise.....
Amount paid to Municipality per year per mile of track..... $.....
Further amounts, if any, paid to Municipality by way of percentage earnings, % on $..... $.....
Total amount paid Municipality during year for franchise..... $.....
Appraised value of Plant and Tracks for purposes of taxation.....
Total taxes paid during year to Municipality.....
Amount of aid received from Municipality, if any.....
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars.....
State if power is purchased or generated by Company.....
State if power is generated by steam or water power.....
Give number of power houses.....

General exhibit:

Gross earnings from operation			$55,490 00
Operating expenses			51,485 85
Net earnings from operation			$4,004 15
Miscellaneous income:			
Interest		$2,524 53	
Total miscellaneous income			2,524 53
Gross income above operating expenses			$ 6,528 68
Charges upon income accrued during the year:			
Interest on funded debt	.....	.....	
Interest and discount on unfunded debts and loans	.....	.....	
Taxes, Municipal	.....		
Taxes, Provincial	$26 70		
Taxes, Commutation	.....		
Rentals of leased right of way	5,000 00		
Payments to sinking and other special funds	.....		
Other deductions from income:			
Depreciation	2,519 27		
		$7,545 97	
Total charges and deductions from income			7,545 97
Net divisible income			$1,017 29
Dividends declared.....per cent. on $.....		.....	
.....per cent. on		.....	
Total dividends declared			.....
Deficit for the year ending December 31, 1923			$1,017 29
Amount of surplus, December 31, 1922			62,369 20
Credits to profit and loss account during the year		.....	
Total credits		.....	
Debits to profit and loss account during the year		.....	
Total debits		.....	
Net amount credited to profit and loss			.....
Total surplus, December 31, 1923			$61,351 91

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	.....
" carriage of mails	.....
" carriage of express and parcels	.....
" carriage of freight	$55,490 00
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	.....
" advertising in cars	.....
" interest on deposits	.....
Other earnings from operation	.....
Gross earnings from operation	$55,490 00
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	.....
General office expenses and supplies	.....
Legal expenses	.....
Insurance	.....
Switching charges, if any	.....
Other general expenses	.....
Maintenance of roadbed and buildings:	
Repair of roadbed and track	$26,185 29
Repair of electric line construction	.....
Repair of buildings	.....
Maintenance of equipment:	
Repair of cars	.....
Repair of electric equipment of cars	.....
Repair of miscellaneous equipment	6,007 19
Provender and stabling	.....
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	.....
Wages and compensation of persons employed in conducting transportation	10,929 10
Removal of snow and ice	.....
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses:	
Fuel	7,892 40
Material	471 87
Total operating expenses	$51,485 85

Property Accounts—Additions and Deductions during the Year.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....
Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....

Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Depreciation:		
Roadbed and tracks	$1,336 16	
Cars and other rolling stock	1,132 44	
Buildings	50 67	
Total deductions from property accounts		$2,519 27
Net deductions from property accounts for the year		$2,519 27

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	$21,378 60	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		$21,378 60
Cost of equipment:		
Cars and other rolling stock	$18,119 00	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		18,119 00
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	$810 72	
Total cost of land and buildings owned		810 72
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$40,308 32
Cash and current assets:		
Cash	.....	
Bills and accounts receivable	$46,043 59	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		$46,043 59
Miscellaneous assets:		
Materials and supplies	.....	
Other assets and property	.....	
Total miscellaneous assets		.....
Profit and loss balance—Deficit		.....
Total		$86,351 91
Liabilities:		
Capital stock, common		$25,000 00
Capital stock, preferred		.....
Total capital stock		$25,000 00

Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		.....
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds	.....	
Total sinking and other special funds		.....
Profit and loss balance—Surplus		61,351 91
Total		$86,351 91

Capital Stock—Real Estate Mortgages.

Capital stock:		
Capital stock authorized by law, common	$50,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$50,000 00	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		$25,000 00
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		$25,000 00
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		$25,000 00
Number of shares issued and outstanding, common.....		
Number of shares issued and outstanding, preferred.....		
Total number of shares outstanding.....		
Number of stockholders, common.....		
Number of stockholders, preferred.....		
Total number of stockholders.....		
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

Real Estate Mortgages.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount		Interest paid during the year	
Totals						

Funded Debt—Sinking and Other Special Funds.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding		Interest paid during the year	
Totals						

Sinking and Other Special Funds.

Amount, December 31, 1923, of.....fund		
of.....fund		
Total, December 31, 1923		
Additions during the year to.....fund		
to.....fund		
Total including additions		
Deductions during the year from.....fund		
from.....fund		
Total sinking and other special funds, December 31, 1923		

Volume of Traffic—Equipment, Etc.

Volume of traffic, etc.:	
Number of passengers paying revenue carried during the year	
Number carried per mile of main railway track operated	
Number of car miles run	
Average number of persons employed	14
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	
Amount of passenger earnings per mile of road	
Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	20 miles

Description of equipment	No. of motor cars	Trailer cars	Official cars	Locomotives	Baggage and mail express cars	Box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	...	...	...	3	....	4	...	2	13	...	...	...	...	....	....	....
Open passenger cars	...	...	...	...	....	...	...	...	...	...	...	...	...	....	....	....

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock	
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	2.671	.....	.....	.....	2.671
Length of second main track	.....	.....	.....	.....	.....
Total length of main track	2.671	.. .. ..	....	.....	2.671
Length of sidings, switches, etc.	2.766	.....	.....	.....	2.766
Total, computed as single track	5.437	.....	.....	.....	5.437
Length of line under construction	.....	.....	.....	.....	.....

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B.M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

DESCRIPTION ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel.	Iron.	Steel.	Iron.		
All	.....	85	.....	3,080	Main track and switches.
.....	.....	65	.....	.....	Sidings.
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located.....

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—				
With Canadian National Railways.....	.....	Interlocking plant, derails and semaphores	1	.....
No. junctions with other railways.....	2	.....	.....	.....
No. of overhead bridges.....	.....	.....	.....	.....
No. of highway crossings.....	1	.....	.....	.....
Height of overhead bridges above rail level.....	.....	.....	.....	.....
Radius of sharpest curve.....	716.8 ft.	.....	.....	.....
No. of feet per mile of heaviest gradient....	158.4 ft.	.....	.....	.....
Gauge of railway.....	4 ft. 8½ in.	.....	.....	.....
Width of devil strip.....	.....	.....	.....	.....
Total number of tracks at crossings.....			.....	.....
Number of above crossings at which frogs are inserted in the tracks....			.....	.....

GENERAL REMARKS AND EXPLANATIONS.

.....
.....
.....

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property.....	.....	.....	.....	.....	.....	.....
Damage to property of Municipality.....	.....	.....	.....	.....	.....	.....
Damage to private property.....	.....	.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....	.....	.....

Total amount paid during year for damages caused by accidents.....

Accidents to Persons.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons						
Totals						

Statement of Each Accident.

.....

.....

.....

Wages Street Railway Companies or Radial Railways.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors					
Motormen					
Starters					
Roadmen					
Linemen					
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics					
Car cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

Corporate Organization.

Corporate name and address of the Company: Thurlow Railway Company, Canada Cement Company Building, Phillips Square, Montreal.

Names of principal officers: President, F. P. Jones; Treasurer, H. L. Doble.

Name of officer, and address, to whom correspondence regarding this report should be addressed: H. L. Doble, secretary-treasurer, c/o Canada Cement Co., Ltd., Montreal.

Names and residence of Board of Directors: F. P. Jones, Montreal; H. L. Doble, Montreal; C. C. Ballantyne, Montreal; A. C. Tagge, Montreal, A. C. Bedford-Jones, Montreal.

ANNUAL REPORT OF THE

TORONTO AND YORK RADIAL RAILWAY

OPERATED BY THE

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO.

For the Year Ending December 31, 1923.

General Information:

Name of Municipality or Municipalities in which railway operates: Richmond Hill, Aurora, Newmarket, Sutton, Mimico, New Toronto, York, Markham, Vaughan, King, Whitechurch, North and East Gwillimbury, Etobicoke, Scarboro and Schomberg.
Name of Company: Toronto and York Radial Railway.
Date of Incorporation: 1898.
Dates of Subsequent Legislation: Acquired as at December 1, 1920, by the Hydro-Electric Power Commission of Ontario to be operated on behalf of the City of Toronto (Toronto Radial Railway Act, 1921).
Date of expiry of franchise: Different dates in the various municipalities.
Amount paid to Municipality per year per mile of track: Nil.
Further amounts, if any, paid to Municipality by way of percentage earnings: Nil.
Total amount paid Municipality during year for franchise: Nil.
Appraised value of plant and tracks for purposes of taxation: $14,372.69.
Total taxes paid during year to Municipality: Nil.
Amount of aid received from Municipality, if any: None.
Power consumed per car mile in kilowatt hours: .....
Cost per horse power for motive power used in operating plant: Power is purchased.
Cost of power per kilowatt per hour: No record.
Cost of power per car mile: 8 cents.
Average speed of cars: 20 miles per hour.
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: .....
Give number of power houses: .....

General Exhibit for the year:

Gross earnings from operation		$835,455 96
Operating expenses		831,537 20
Net earnings from operation		$3,918 76
Miscellaneous income:		
Total miscellaneous income		
Gross income above operating expenses		$3,918 76
Charges upon income accrued during the year:		
Interest on funded debt	$142,500 00	
Interest and discount on unfunded debts and loans	52,987 58	
Taxes, Municipal		
Taxes, Provincial		
Taxes, Commutation	14,353 93	
Rentals of leased railways:		
Payments to sinking and other special funds:		
Other deductions from income:		
Total charges and deductions from income		209,841 51
Net loss		$205,922 75
Dividends declared .....per cent. on $		
.....per cent. on		
Total dividends declared		
Surplus or deficit for the year ending December 31, 1923		$205,922 75
Amount of surplus, December 31, 1922		112,546 04
Credits to profit and loss account during the year		
Total credits		

Debits to profit and loss account during the year:		
Transferred to City of Toronto	$101,720 55	
Additional interest and expense, 1922	31,665 02	
Revenue adjustments, 1922	11,391 37	
Total debits	$144,776 94	
Net amount credited to profit and loss		144,776 94
Total deficit, December 31, 1923		$238,153 65

Earnings and Expenses of Operation.

Earnings from Operation:	
Receipts from passengers carried	$644,788 48
from carriage of mails	3,500 48
from carriage of express and parcels	445 52
from carriage of freight	167,756 76
from tolls for use of tracks by other companies	812 82
from rentals of buildings and other property	12,908 89
from advertising in cars	2,203 85
from demurrage	55 00
from miscellaneous	2,947 86
from parcel room receipts	36 30
Gross earnings from operation	$835,455 96
Expenses of Operation:	
General Expenses:	
Salaries of general officers and clerks and attendants	$22,983 45
General office expenses and supplies	47,705 51
Legal expenses	349 55
Insurance	40,081 19
Switching charges, if any	.....
Other general expenses: Rent of equipment	5,237 50
Advertising, etc.	3,465 75
Valuation expenses	5,601 07
Printing and stationery	11,956 25
Maintenance of Roadbed and Buildings:	
Repair of roadbed and track	116,314 70
Repair of electric line construction	12,514 65
Repair of buildings	6,821 16
Maintenance of Equipment:	
Repair of cars	46,473 59
Repair of electric equipment of cars	34,033 78
Repair of miscellaneous equipment	19,370 18
Provender and stabling	7,121 24
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	154,789 17
Wages and compensation of persons employed in conducting transportation	262,695 98
Damages for injuries to persons (credit)	240 59
property	292 38
Tolls for trackage over other railways	13 50
Rentals of buildings and other property	.....
Other transportation expenses: Cartage, materials, etc	33,957 19
Total operating expenses	$831,537 20

Property Accounts—Additions and Deductions during the Year.

Additions to Railway:		
Extension of tracks (length 5,177 feet)	$97,570 52	
New electric line construction (length 5,177 feet),	23,280 86	
Other additions to railway: Interest during construction	1,178 52	
Total additions to railway		$122,029 90

Additions to equipment:		
Additional cars (.....in number)	$1,087 36	
Electric equipment of same	27 42	
Other additional rolling stock	.....	
Other additions to equipment: Shop tools	1,856 56	
Miscellaneous equipment	419 70	
Total additions to equipment		$3,400 04
Additions to land and buildings:		
Additional land necessary for operation of railway (credit)	$3,674 30	
New electric power stations, including machinery, etc	7,768 32	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	84,632 56	
Total additions to land and buildings		88,726 58
Additions to other permanent property:		
Total additions to other permanent property		.....
Total additions to property accounts		$214,156 52
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts):		
Note: Adjustment in 1922, re power and light system and purchase cost of stores (credit)	$126,634 20	
Total deductions from property accounts		.....
Net addition to property accounts for the year		$214,156 52

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost:	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment:	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$2,815,548 81
Cash and current assets:		
Cash	$48,574 59	
Bills and accounts receivable	56,607 33	
Sinking and other special funds	.....	
Other cash and current assets: Insurance and expenses prepaid	5,292 43	
Deferred purchase expense	28,725 27	
Total cash and current assets		139,199 67

Miscellaneous assets:		
Materials and supplies	$114,758 09	
Other assets and property:	.....	
Total miscellaneous assets		$114,758 09
Profit and loss balance—deficit		238,153 65
Total		$3,307,660 22
Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$2,375,000 00
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	$715,485 62	
Audited vouchers and accounts	187,332 92	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Unearned revenues	5,382 43	
Total current liabilities		908,200 97
Accrued liabilities:		
Interest accrued and not yet due	$11,875 00	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Ticket and damages reserves	12,584 25	
Total accrued liabilities		$24,459 25
Sinking and other special funds:	.....	
Total sinking and other special funds		.....
Profit and loss balance—Surplus		.....
Total		$3,307,660 22

Capital Stock—Real Estate Mortgages.

Capital stock:		
Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....
Amount paid in on.....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....

Number of shares issued and outstanding, common	
Number of shares issued and outstanding, preferred	
Total number of shares outstanding	
Number of stockholders, common	
Number of stockholders, preferred	
Total number of stockholders	
Amount of stock held, common	
Amount of stock held, preferred	
Total stock held	

REAL ESTATE MORTGAGES.

Description of mortgaged property.	Rate of interest	Mortgage when due	Amount	Interest paid during the year.
Totals				

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year.
Hydro-radial	6%	Dec. 1, 1940	$2,375,000 00	$142,500 00
Totals				

Sinking and Other Special Funds.

Amount December 31, 192 , of.....fund,.....	.....
of.....fund,.....	.....
Total, December 31, 192 ,.....	.....
Additions during year to.....fund,.....	.....
to.....fund,.....	.....
Total including additions.....	.....
Deductions during the year from.....fund,.....	.....
from.....fund,.....	.....
Total sinking and other special funds, December 31, 192 ,.....	.....

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.:	
Number of passengers paying revenue carried during the year.....	$7,022,227
Number carried per mile of main railway track operated.....	86,284
Number of car miles run.....	1,824,893
Average number of persons employed.....	400
If the Company commenced operation during the year, give the date.....	
Average amount received from each passenger.....	9 cents
Amount of passenger earnings per mile of road.....	$6,686 00
Freight:	
Number of tons freight earning revenue.....	128,050
Number of tons freight carried per mile of road.....	1,348
Average amount received for each ton of freight.....	$1 31
Average receipts per ton of freignt per mile.....no record	
Average rate of speed of passenger cars per hour.....	15 to 18 miles
Average rate of speed of freight cars per hour.....	20 miles

Description of Equipment.	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars.....	42	....	1	2	10	....	..	47	2	..	11	4	..	43	23	46
Open passenger cars.....	....	....	....	....	....	....	..	..	....	..	..	..	..	....	....	....

Miscellaneous Equipment.

	Total Number.
Barges and omnibuses.....	
Carts and snow sleds.....	
Other railway rolling stock: Bonding car.....	1
Other highway vehicles: Automobiles.....	2
Trucks.....	9
Horses.....	
Other items of equipment:	

DESCRIPTION OF RAILWAY OWNED AND OPERATED

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage other over railways	Total owned, leased, etc.	Total operated
Length of railway line	80.069				
Length of second main track	1.315				
Total length of main track	81.384				
Length of sidings, switches, etc.	13.540				
Total, computed as single track.	94.924				
Length of line under construction					

Description of Freight Carried for Year ending December 31, 1923.

Flour		Grain		Live Stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft.	Tons B.M.	Cords	Tons			
	1,092		2,909		1,322		4,711		8,182	109,834	128,050	

Description Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
		56		2,640	Gravel ballast, 6 inches under tie untreated.
		60		2,640	Gravel ballast 6 inches under tie, untreated.
		80		2,640	Gravel ballast 6 inches under tie, creosoted, with tie-plates.

Names of the several cities and towns in which the railways operated by the Company are located: Richmond Hill, Aurora, Newmarket, Sutton, Mimico, New Toronto, York, Markham, Vaughan, King, Whitechurch, North and East Gwillimbury, Etobicoke, Scarboro and Schomberg.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of Tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (2 in number), viz.:				
With G.T.Ry. at Jackson's Point	.....	Interlocker	Single	Single
G.T.Ry. at Schomberg and Aurora Junction	.....	.....	Single	Single
G.T.Ry. at Port Credit	.....	.....	Single	Single
No. junctions with other railways	2	.....	.....	.....
No. of overhead bridges	3	.....	.....	.....
No. of highway crossings	70	.....	.....	.....
Height of overhead bridges above rail level	22′	22′ 6″	.....	.....
Radius of sharpest curve	100′	.....	.....	.....
No. of feet per mile of heaviest gradient	5%	.....	.....	.....
Gauge of railway	4′ 8½″	4′ 10⅜″	.....	.....
Width of devil strip	.....	.....	.....	.....
Total number of tracks at crossings			3	3
Number of above crossings at which frogs are inserted in the tracks			.....	.....

GENERAL REMARKS AND EXPLANATIONS.

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SUMMARY OF ACCIDENTS TO PROPERTY.

December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	0	14	1	5	0	22
Damage to property of Municipality	0	0	0	0	0	0
Damage to private property	3	30	0	12	4	51
Total	3	44	1	17	4	73

Total amount paid during year for damages caused by accidents: Covered by insurance.

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers		14		18		32
Employees		9		2		11
Other persons		3	1	10	1	13
Totals		26	1	30	1	56

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANIES OR RADIAL RAILWAYS.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors, Motormen	128	10	44c.	47c.	50c. hour
Starters					
Roadmen	117	10	37½c.	to 55½c.	hour
Linemen	16	10	50c.	to 57½c.	"
Engineers (substations)	27	8	$110.00	to 120.00	month
Blacksmiths	5	10	50c.	to 55c.	hour
Firemen					
Electricians	5	10	40c.	to 60c.	"
Armature winders	2	10	50c.	to 60c.	"
Machinists and Mechanics	45	10	50c.	to 65c.	"
Car cleaners	6	10	35c.	to 40c.	"
Average number of employees	400				
Watchmen	3		35c.	to 40c.	"
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Toronto and York Radial Railway.

Names and business addresses of principal officers: President, Lt.-Col. Sir Adam Beck, Kt., LL.D., Toronto; Commissioner, Hon. J. R. Cooke, M.P.P., Toronto; Treasurer, J. W. Gilmour, Toronto; Secretary, W. W. Pope, Toronto; Chief Engineer, F. A. Gaby, Toronto; Auditor, G. F. Clarkson, Toronto; General Superintendent, W. R. Robertson, Toronto; Superintendent, C. L. Wilson, Toronto.

Name of officer, and address, to whom correspondence regarding this report should be addressed: W. G. Purdon, Accountant, Toronto.

Names and residence of Board of Directors: None.

ANNUAL REPORT OF THE

TORONTO TRANSPORTATION COMMISSION

For the Year Ending December 31, 1923.

General information:

Name of Municipality or Municipalities in which railway operates:	Toronto, Ontario.
Name of Company: Toronto Transportation Commission.	
Date of Incorporation: August, 1920. 10-11 Geo. V, Chap. 144.	
Dates of subsequent legislation	
Date of expiry of franchise	Municipally owned.
Amount paid to Municipality per year per mile of track	Nil.
Further amounts, if any, paid to Municipality by way of percentage earnings	Nil.
Total amount paid Municipality during year for franchise	Nil.
Appraised value of plant and tracks for purposes of taxation	
Total taxes paid during year to Municipality	
Amount of aid received from Municipality, if any	
Power consumed per car mile in kilowatt hours	3.225 K.W.H.
Cost per horse power for motive power used in operating plant	
Cost of power per kilowatt per hour	
Cost of power per car mile	3.887 cents
Average speed of cars	9.57 M.P.H.
State if power is purchased or generated by Company	Purchased
State if power is generated by steam or water power	
Give number of power houses	

General exhibit for the year:

Gross earnings from operation			$11,852,334 63
Operating expenses			8,164,986 33
Net earnings from operation			$3,687,348 30
Miscellaneous income		.....	
Total miscellaneous income			.....
Gross income above operating expenses			$3,687,348 30
Charges upon income accrued during the year:			
Interest on funded debt, debentures, etc.		$2,092,961 66	
Interest and discount on unfunded debts, loans, mortgages		27,435 21	
Taxes, Municipal		62,906 51	
Taxes, Provincial		.....	
Taxes, Commutation		.....	
Rentals of leased railways		.....	
Payments to sinking and other special funds:			
Sinking fund charges	$267,328 92		
Depreciation	877,090 00		
		1,144,418 92	
Other deductions from income:			
Injuries and damages	$116,787 45		
Unredeemed tickets, contingencies	118,000 00		
		$234,787 45	
Total charges and deductions from income			$3,562,509 75
Net divisible income			$124,838 55
Dividends declared .....per cent. on $		.....	
.....per cent. on		.....	
Total dividends declared			.....
Surplus for the year ending December 31, 1923			$124,838 55

Amount of surplus, December 31, 1922		$109,468 99
		$234,307 54
Credits to profit and loss account during the year		
Power rebate and miscellaneous items	$6,853 03	
Total credits		
Debits to profit and loss account during the year		
Remodelling rolling stock	131,896 97	
Total debits	$131,896 97	
Net amount credited to profit and loss		125,043 94
Total surplus, December 31, 1923		$109,263 60

Earnings and expenses of operation:	
Earnings from operation:	
Receipts from passengers carried	$11,642,457 02
" carriage of mails	
" carriage of express and parcels	
" carriage of freight	
" tolls for use of tracks by other companies	
" rentals of buildings and other property	27,724 64
" advertising in cars	128,709 14
" interest on deposits	
Other earnings from operation	
Sundry other sources	53,443 83
Gross earnings from operation	$11,852,334 63
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$196,491 62
General office expenses and supplies	57,049 26
Legal expenses	10,491 64
Insurance	105,924 02
Switching charges, if any	
Other general expenses:	
Miscellaneous general expenses	107,756 51
Tickets, transfers, etc	98,173 14
Maintenance of roadbed and buildings:	
Repair of roadbed and track	410,817 50
Repair of electric line construction	123,785 90
Repair of buildings	55,071 72
Maintenance of equipment:	
Repair of cars	834,414 39
Repair of electric equipment of cars	255,996 85
Repair of miscellaneous equipment	28,463 04
Provender and stabling	
Transportation expenses:	
Cost of electric motive power, $.....; less power sold, $.....; net	1,044,518 42
Wages and compensation of persons employed in conducting transportation	4,261,540 33
Removal of snow and ice	143,844 09
Damages for injuries to persons and property	123,212 55
Tolls for trackage over other railways	
Rentals of buildings and other property	
Other transportation expenses	307,435 35
Total operating expenses	$8,164,986 33

PROPERTY ACCOUNTS—ADDITIONS AND DEDUCTIONS DURING THE YEAR.

Additions to railway:		
Extension of tracks (length, 63,122 feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		$2,303,429 16
Additions to equipment:		
Additional cars (325 in number)	$3,082,472 01	
Electric equipment of same	778,573 05	
Other additional rolling stock	102,454 50	
Other additions to equipment	49,133 47	
Total additions to equipment		4,012,633 03
Additions to land and buildings:		
Additional land necessary for operation of railways	$731,051 49	
New electric power stations, including machinery, etc.	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	371,471 19	
Total additions to land and buildings		1,102,522 68
Additions to other permanent property:		
Miscellaneous and adjustments		631,808 31
Total additions to other permanent property		$8,050,393 18
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Paving and other adjustments	$2,365,885 44	
Total deductions from property accounts		2,365,885 44
Net addition to property accounts for the year		$5,684,507 74

GENERAL BALANCE SHEET.

Assets:		
Cost of railway:		
Roadbed and tracks	.....	
Electric line construction, including poles, wiring, feeder lines, etc.	.....	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	.....	
Other items of railway cost	.....	
Total cost of railway owned		.....
Cost of equipment:		
Passenger cars and other rolling stock	.....	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		.....
Cost of land and buildings:		
Land necessary for operation of railway	.....	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	.....	
Total cost of land and buildings owned		.....
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$43,500,974 86

Cash and current assets:		
Cash	$148,804 70	
Bills and accounts receivable	1,060,172 13	
Sinking and other special funds	848,917 92	
Other cash and current assets: Advances to agents and conductors, also capital funds in hands of City Treasurer	5,154,366 01	
Total cash and current assets		$7,212,260 76
Miscellaneous assets:		
Materials and supplies	$524,315 46	
Other assets and property	.....	
Prepaid charges	165,983 52	
Total miscellaneous assets		690,298 98
Profit and loss balance—Deficit		.....
Total		$51,403,534 60

Details of assets not yet available. Toronto Railway Company property acquired through arbitration, the award now going to appeal.

Liabilities:		
Capital stock, common		.....
Capital stock, preferred		.....
Total capital stock		.....
Funded debt		$34,645,340 65
Real estate mortgages		462,000 00
Current liabilities:		
Loans and notes payable	.....	
Audited vouchers and accounts	$1,055,773 49	
Salaries and wages	248,750 51	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		1,304,524 00
Accrued liabilities:		
Interest accrued and not yet due	$141,292 24	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities:		
Total accrued liabilities		141,292 24
Contingent liability *re* Toronto Railway Company award and interest thereon, less payment on account		9,660,280 90
Sinking and other special funds:		
Sinking fund reserve	$1,429,663 11	
Miscellaneous reserves	3,651,170 10	
Total sinking and other special funds		5,080,833 21
Profit and loss balance—Surplus		109,263 60
Total		$51,403,534 60

CAPITAL STOCK—REAL ESTATE MORTGAGES.

Capital stock:		
Capital stock authorized by law, common	.....	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	.....	

Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....
Amount paid in on ..... shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	
Amount of stock held, common	.....	
Amount of stock held, preferred	.....	
Total stock held	.....	

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
J. E. Edwards & Son, Oct. 1, 1921	6 %	Oct. 1, 1926	$34,000 00	.....
J. W. MacNamara & Son, Oct. 1, 1921	5½%	Aug. 1, 1926	420,000 00	.....
E. G. Shepley, April 29, 1920	6½%	Apl. 29, 1925	8,000 00	.....
Totals	.....	.....	$462,000 00	$27,435 21

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

Funded Debt—Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
Sinking Fund Debentures—				
By-law 5626—July 1, 1911	4 %	July 1, '36	$1,157,293 00	$46,291 72
" 5933—Jan. 1, 1912	4 %	July 1, '36	139,488 00	5,579 52
" 6954—July 1, 1914	4½%	July 1, '24	65,285 81	2,937 86
" 7150—July 1, 1914	4½%	July 1, '48	65,488 00	2,946 96
" 7269—Jan. 1, 1915	4½%	July 1, '36	455,961 00	20,518 24
" 7270—Jan. 1, 1915	4½%	July 1, '35	10,128 84	1,063 30
" 7451—July 1, 1915	4½%	July 1, '36	108,696 00	4,891 32
" 9303—Dec. 1, 1920	6 %	Dec. 1, '40	585,000 00	35,100 00
Serial Debentures—				
By-law 7822—June 1, 1917	5 %	June 1, '27	8,000 00	450 00
" 7824—June 1, 1917	5 %	June 1, '37	104,000 00	5,355 00
" 7826—June 1, 1917	5 %	June 1, '37	117,000 00	6,000 00
" 8178—Sept. 1, 1919	5½%	Sept. 1, '29	135,000 00	8,415 00
" 8627—Mch. 1, 1921	6 %	Mch. 1, '41	2,694,000 00	165,960 00
" 8731—June 1, 1921	6 %	June 1, '51	10,000,000 00	600,000 00
" 8781—July 1, 1921	6 %	July 1, '51	10,000,000 00	600,000 00
" 9463—Dec. 1, 1922	5 %	Dec. 1, '52	5,000,000 00	217,808 00
" 9694—July 1, 1923	5 %	July 1, '53	4,000,000 00	38,927 53
Totals	.....	.....	$34,645,340 65	$1,762,214 45

Sinking and Other Special Funds.

Amount, December 31, 1923, of sinking fund	.....
of.....fund	.....
Total, December 31, 1923	.....
Additions during the year to.....fund	.....
to.....fund	.....
Total including additions	.....
Deductions during the year from.....fund	.....
from.....fund	.....
Total sinking and other special funds, December 31, 1923	$848,917 92

Volume of Traffic—Equipment, Etc.

Volume of Traffic, etc.:	
Number of passengers paying revenue carried during the year	189,143,145
Number carried per mile of main railway track operated	.....
Number of car miles run	27,231,444
Average number of persons employed	.....
If the Company commenced operation during the year, give the date	.....
Average amount received from each passenger	6.148 cents
Amount of passenger earnings per mile of road	.....
Freight:	
Number of tons freight earning revenue	.....
Number of tons freight carried per mile of road	.....
Average amount received for each ton of freight	.....
Average receipts per ton of freight per mile	.....
Average rate of speed of passenger cars per hour	.....
Average rate of speed of freight cars per hour	.....

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Misc. service cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars	834	225	...	...	...	...	...	...	...	...	47	...	25	1,106	...	...
Open passenger cars	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Miscellaneous Equipment.

	Total Number
Barges and omnibuses	.....
Carts and snow sleds	.....
Other railway rolling stock	.....
Other highway vehicles	.....
Horses	1
Other items of equipment:	
Motor gas busses	15
Motor gas snow plows	3
Trackless trolley busses	4

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	95.647	.....	.....	.....	95.647
Length of second main track	87.694	.....	.....	.....	87.694
Total length of main track	183.341	.....	.....	.....	183.341
Length of sidings, switches, etc.	30.370	.....	.....	.....	30.370
Total, computed as single track	213.711	.....	.....	.....	213.711
Length of line under construction	8.229	.....	.....	.....	8.229

Description of Freight Carried for Year Ending December 31, 1923.

Flour.		Grain.		Live Stock.		Lumber.		Fuel.		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B. M.	Tons	Cords	Tons			
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Description Road Bed, Etc.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
122 lb.	G.G.	A.E.R.E.A.	.....	24″ centres	with concrete foundation; straight track; paving, granite setts and asphalt.
.....	.....	.....	.....	20″ centres	with broken stone foundation; straight track; paving, granite setts and asphalt.
140 lb.	G.G.	A.E.R.E.A.	.....	20″ centres	with broken stone foundation; special work; paving, granite setts.
122 lb.	G.G.	.....	.....	20″ centres	with broken stone foundation; special work; paving, granite setts.
85 lb.	C.P.R. and 70 lb.	A.S.C.E. R	ail	.....	Broken stone foundation; yards.

Names of the several cities and towns in which the railways operated by the Company are located: Toronto only.

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads		Unprotected	How protected	Number of tracks at crossing	
				T.T.C. tracks	Railway tracks
Crossings of railways with railroads at grade (.....in number), viz.:—					
With C.P.R. at Front Street		.....	1 tower, 5 gates, 2 derails	2	1
With C.N.R. at Front Street		.....	1 tower, 4 gates, 2 derails	2	1
With C.N.R. at Ashbridge's Industrial		No protection		2	1
With C.N.R. at Queen Street East		.....	4 gates, 2 derails; 2 semaphores on steam line	2	2
With C.N.R. at Davenport Avenue		.....	1 tower, 4 gates, 2 derails, 2 signals	2	2
With C.N.R. at Bathurst Street		No protection		2	1
With C.N.R. at Danforth Avenue		.....	2 derails and semaphores	2	1
With C.N.R. at Keele Street		.....	4 derails	1	1
No. junctions with other railways		.....	.....	.....	.....
No. of overhead bridges		.....	.....	.....	.....
No. of highway crossings		.....	.....	.....	.....
Height of overhead bridges above rail level		.....	.....	.....	.....
Radius of sharpest curve	37′ 0″	.....	.....	.....	.....
No. of feet of heaviest gradient	9.49%	Avenue	Road Hill	.....	.....
Gauge of railway	4′ 10⅝″	.....	.....	.....	.....
Width of devil strip	5′ 4″	Standard	.....	.....	.....
Total number of tracks at crossings				15	11
Number of above crossings at which frogs are inserted in the tracks					

GENERAL REMARKS AND EXPLANATIONS.

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SUMMARY OF ACCIDENTS TO PROPERTY.

For Year Ending December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	37	148	52	224	44	389
Damage to property of Municipality	2	2	3	2	2	13
Damage to private property	351	1,402	292	876	730	2,190
Total	390	1,552	347	1,102	776	2,592

Total amount paid during year for damages caused by accidents .....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers	0	221	1	517	1	738
Employees	0	82	2	738	2	820
Other persons	0	34	7	138	7	172
Totals	0	337	10	1,393	10	1,730

STATEMENT OF EACH ACCIDENT.

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.....

.....

WAGES STREET RAILWAY COMPANIES OR RADIAL RAILWAYS.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st year	2nd year	3rd year
Inspectors	56	8	$145.00,	150.00,	155.00 per mo.
Conductors	1,140	8	1st 3 mo.	next 9	after 1 yr.
Motormen	1,021		55	57½	60c. hr.
Starters	15	8	140.00	to 150.00	per mo.
Roadmen	.....	.....	.....	.....	.....
Linemen: First class	21	8	77 to 78c	per hour	.....
Second class	5	8	72	.....	.....
Engineers	.....	.....	.....	.....	.....
Blacksmiths	11	8	62, 65	and 72c	per hour
Firemen	32	8	60c per	hour	.....
Electricians	296	8	1st 3 mo. 55c	next 9 57½c	after 1 yr. 60c
Armature winders	7	8	63 to 73c	per hour	.....
Machinists and mechanics	28	8	71 to 81c	per hour	.....
Car cleaners	156	8	54c per	hour	.....
Average number of employees	3,681	.....	.....	.....	.....
Watchmen	9	8	18.00	per week	.....
Switchmen and crossing tenders	5	8	1.50	per day	.....

CORPORATE ORGANIZATION.

Corporate name and address of the Company: Toronto Transportation Commission, Toronto, Ontario.

Names and business address of principal officers: Chairman of Commission, P. W. Ellis, Toronto, Ont.; Commissioner, George Wright, Toronto, Ont.; Commissioner, E. J. Lennox, Toronto, Ont; Secretary, H. S. Cameron, Toronto, Ont.; General Counsel, Irving S. Fairty, K.C., Toronto, Ont.; Auditor, S. C. Scott, C.A., Toronto, Ont.; General Manager, H. H. Couzens, Toronto, Ont.; Assistant Manager, D. W. Harvey, Toronto, Ont.

Name of officer, and address, to whom correspondence regarding this report should be addressed: H. H. Couzens, General Manager, Toronto, Ont.

ANNUAL REPORT OF THE

WATERLOO WELLINGTON RAILWAY COMPANY

FOR THE PERIOD ENDING OCTOBER 3, 1923.

General information:

Name of Municipality or Municipalities in which railway operates: City of Kitchener and Village of Bridgeport.
Name of Company: The Waterloo Wellington Railway Company.
Date of Incorporation: 12th December, 1901, as Berlin & Bridgeport Electric Street Railway Company, Limited.
Dates of subsequent legislation: Act of Ontario Legislature, March 18, 1912, changing name to The Berlin & Northern Railway Company; Act of Ontario Legislature, April 16, 1919, changing name to The Waterloo Wellington Railway Company.
Date of expiry of franchise: Part intermediate and part June 29, 1937.
Amount paid to Municipality per year per mile of track: .....$.....
Further amounts, if any, paid to Municipality by way of percentage earnings, % on $.....$.....
Total amount paid Municipality during year for franchise.....$.....
Appraised value of plant and tracks for purposes of taxation .....
Total taxes paid during year to Municipality.....
Amount of aid received from Municipality, if any.....
Power consumed per car mile in kilowatt hours.....
Cost per horse power for motive power used in operating plant.....
Cost of power per kilowatt per hour.....
Cost of power per car mile.....
Average speed of cars: About 8 miles per hour.
State if power is purchased or generated by Company: Purchased.
State if power is generated by steam or water power: Hydro-Electric.
Give number of power houses.....

General Exhibit:

Gross earnings from operation		$9,712 64
Operating expenses, not including taxes		8,714 82
Net earnings from operation		$997 82
Miscellaneous income	.....	
Total miscellaneous income		.....
Gross income above operating expenses		$997 82
Charges upon income accrued during the year:		
Interest on funded debt	$3,600 00	
Interest and discount on unfunded debts and loans	971 60	
Taxes, Municipal $337 85		
Taxes, Provincial 32 60		
Taxes, Commutation		
	370 45	
Rentals of leased railways	.....	
Payments to sinking and other special funds	.....	
Other deductions from income	.....	
Total charges and deductions from income		4,942 05
Net divisible income		$3,944 23
Dividends declared .....per cent. on $	.....	
.....per cent. on	.....	
Total dividends declared		.....
Deficit for the year ending October 3, 1923		$3,944 23
Amount of deficit, December 31, 1922		17,063 31
Credits to profit and loss account during the year	.....	
Total credits	.....	

Debits to profit and loss account during the year	.....	
Total debits	.....	
Net amount credited to profit and loss		.....
Total deficit, December 31, 1923		$21,007 54

Earnings and Expenses of Operation.

Earnings from operation:	
Receipts from passengers carried	$8,444 46
" carriage of mails	603 68
" carriage of express and parcels	27 55
" carriage of freight	.....
" tolls for use of tracks by other companies	.....
" rentals of buildings and other property	165 25
" advertising in cars	150 92
" interest on deposits	.....
Other earnings from operation	320 78
Gross earnings from operation	$9,712 64
Expenses of operation:	
General expenses:	
Salaries of general officers and clerks and attendants	$1,167 00
General office expenses and supplies	179 00
Legal expenses	.....
Insurance	422 67
Switching charges, if any	.....
Other general expenses	525 06
Maintenance of roadbed and buildings:	
Repair of roadbed and track; repair of electric line construction	428 93
Repair of buildings	70 11
Maintenance of equipment:	
Repair of cars; repair of electric equipment of cars; repair of miscellaneous equipment	724 59
Provender and stabling	.....
Transportation Expenses:	
Cost of electric motive power and use of city track	2,686 29
Wages and compensation of persons employed in conducting transportation	2,375 50
Removal of snow and ice	135 67
Damages for injuries to persons and property	.....
Tolls for trackage over other railways	.....
Rentals of buildings and other property	.....
Other transportation expenses	.....
Total operating expenses	$8,714 82

Property Accounts—Additions and Deductions during the Year.

Additions to railway:		
Extension of tracks (length.....feet)	.....	
New electric line construction (length.....feet)	.....	
Other additions to railway	.....	
Total additions to railway		.....
Additions to equipment:		
Additional cars (.....in number)	.....	
Electric equipment of same	.....	
Other additional rolling stock	.....	
Other additions to equipment	.....	
Total additions to equipment		.....

Additions to land and buildings:		
Additional land necessary for operation of railway	.....	
New electric power stations, including machinery, etc	.....	
Additional equipment of power stations	.....	
Other new buildings necessary for operation of railway	.....	
Total additions to land and buildings		.....
Additions to other permanent property	.....	
Total additions to other permanent property		.....
Total additions to property accounts		.....
Deductions from property accounts (property sold or reduced in valuation and credited to property accounts)	.....	
Total deductions from property accounts		.....
Net addition to property accounts for the year		.....

General Balance Sheet.

Assets:		
Cost of railway:		
Roadbed and tracks; electric line construction, including poles, wiring, feeder lines, etc	$49,012 13	
Interest accrued during construction of railway	.....	
Engineering and other expenses incident to construction	2,633 76	
Other items of railway cost	5,283 08	
Total cost of railway owned		$56,928 97
Cost of equipment:		
Passenger cars and other rolling stock	$7,871 45	
Electric equipment of same	.....	
Other items of equipment	.....	
Total cost of equipment owned		7,871 45
Cost of land and buildings:		
Land necessary for operation of railway	$4,719 37	
Electric power stations, including equipment	.....	
Other buildings necessary for operation of railway	7,746 51	
Total cost of land and buildings owned		12,465 88
Other permanent property	.....	
Total cost of other permanent property owned		.....
Total permanent investments		$77,266 30
Cash and current assets:		
Cash	$221 97	
Bills and accounts receivable	.....	
Sinking and other special funds	.....	
Other cash and current assets	.....	
Total cash and current assets		.....
Miscellaneous asssets:		
Materials and supplies	.....	
Other assets and property	$922 18	
Total miscellaneous assets		1,144 15
Profit and loss balance—Deficit		21,007 54
Total		$99,417 99

Liabilities:		
Capital stock, common		$19,200 00
Capital stock, preferred		.....
Total capital stock		$19,200 00
Funded debt		.....
Real estate mortgages		.....
Current liabilities:		
Loans and notes payable	$14,217 99	
Audited vouchers and accounts	.....	
Salaries and wages	.....	
Dividends not called for	.....	
Matured interest coupons unpaid	.....	
Rentals due and unpaid	.....	
Miscellaneous current liabilities	.....	
Total current liabilities		14,217 99
Accrued liabilities:		
Interest accrued and not yet due	.....	
Taxes accrued and not yet due	.....	
Rentals accrued and not yet due	.....	
Miscellaneous accrued liabilities	.....	
Total accrued liabilities		.....
Sinking and other special funds: Bonds	$66,000 00	
Total sinking and other special funds		66,000 00
Profit and loss balance—Surplus		.....
Total		$99,417 99

Capital Stock—Real Estate Mortgages.

Capital stock:		
Capital stock authorized by law, common	$400,000 00	
Capital stock authorized by law, preferred	.....	
Total capital stock authorized by law	$400,000 00	
Capital stock authorized by votes of company, common	.....	
Capital stock authorized by votes of company, preferred	.....	
Total capital stock authorized by vote	.....	
Capital stock issued and outstanding, common		.....
Capital stock issued and outstanding, preferred		.....
Total capital stock outstanding		.....
Amount paid in on .....shares not yet issued		.....
Amount paid in on stock to be exchanged		.....
Scrip convertible into stock		.....
Other paid stock liability		.....
Total capital stock liability		.....
Number of shares issued and outstanding, common	.....	
Number of shares issued and outstanding, preferred	.....	
Total number of shares outstanding	.....	
Number of stockholders, common	.....	
Number of stockholders, preferred	.....	
Total number of stockholders	.....	

Amount of stock held, common	
Amount of stock held, preferred	
Total stock held	

REAL ESTATE MORTGAGES.

Description of mortgaged property	Rate of interest	Mortgage when due	Amount	Interest paid during the year
Totals				

FUNDED DEBT—SINKING AND OTHER SPECIAL FUNDS.

FUNDED DEBT— Description of bonds, etc.	Rate of interest	Day of maturity	Amount outstanding	Interest paid during the year
First Mortgage Bonds	6%		$66,000 00	
Totals				

SINKING AND OTHER SPECIAL FUNDS.

Amount, December 31, 1923, of ..... fund		
of ..... fund		
Total, December 31, 1923		
Additions during the year to ..... fund		
to ..... fund		
Total including additions		
Deductions during the year from ..... fund		
from ..... fund		
Total sinking and other special funds, December 31, 1923		

VOLUME OF TRAFFIC—EQUIPMENT, ETC.

Volume of traffic, etc.	
Number of passengers paying revenue carried during the period	138,657
Number carried per mile of main railway track operated	40,780
Number of car miles run	26,850
Average number of persons employed	4
If the Company commenced operation during the year, give the date	
Average amount received from each passenger	4.91 cents
Amount of passenger earnings per mile of road	$2,480 00
Freight:	
Number of tons freight earning revenue	
Number of tons freight carried per mile of road	
Average amount received for each ton of freight	
Average receipts per ton of freight per mile	
Average rate of speed of passenger cars per hour	
Average rate of speed of freight cars per hour	

Description of equipment	No. of motor cars	Trailer cars	Official cars	Electric locomotives	Baggage and mail express cars	Cattle and box cars	Refrigerator cars	Platform cars	Coal and dump cars	Conductors' vans	Tool cars	Snow plows	Snow sweepers	Equipped with fenders	Equipped with stoves	Equipped with electric heaters
Box passenger cars																
Open passenger cars																

Miscellaneous Equipment.

	Total number
Barges and omnibuses	
Carts and snow sleds	
Other railway rolling stock:	
Steel dump cars	3
Hand cars	2
Other highway vehicles	
Horses	
Other items of equipment	

DESCRIPTION OF RAILWAY OWNED AND OPERATED.

Railway Owned, Leased and Operated (by Electric Power).

Railway owned, etc.	Owned	Held under lease or contract	Trackage over other railways	Total owned, leased, etc.	Total operated
Length of railway line	2.8		1	3.8	3.4
Length of second main track					
Total length of main track					
Length of sidings, switches, etc.					
Total, computed as single track					
Length of line under construction					

Description of Freight Carried for Year Ending December 31, 1923.

Flour		Grain		Live stock		Lumber		Fuel		All other articles	Total tonnage	Remarks
Bbls.	Tons	Bush.	Tons	No.	Tons	Ft., B. M.	Tons	Cords	Tons			

DESCRIPTION OF ROAD BED, ETC.

Rails		Weight per yard		No. ties to mile	General remarks
Steel	Iron	Steel	Iron		
.....	.....	60 to 65 lb.	.....	2,600	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Names of the several cities and towns in which the railways operated by the Company are located.....

GRADE CROSSINGS WITH RAILROADS, ETC.

Grade crossings with railroads	Unprotected	How protected	Number of tracks at crossing	
			Railroad tracks	Railway tracks
Crossings of railways with railroads at grade (2 in number), viz.:—				
With G.T.R. spur line, Lancaster Street, Bridgeport	.....	Semaphore, etc.	.....	.....
With G.T.R. siding, Louisa Street, Kitchener	.....	Semaphore and derails	.....	.....
No. junctions with other railways	.....	.....	.....	.....
No. of overhead bridges	.....	.....	.....	.....
No. of highway crossings	.....	.....	.....	.....
Height of overhead bridges above rail level	.....	.....	.....	.....
Radius of sharpest curve	.....	.....	.....	.....
No. of feet per mile of heaviest gradient	.....	.....	.....	.....
Gauge of railway	.....	.....	.....	.....
Width of devil strip	.....	.....	.....	.....
Total number of tracks at crossings			.....	.....

Number of above crossings at which frogs are inserted in the tracks.....

GENERAL REMARKS AND EXPLANATIONS.

Junction with K. & W. Street Railway at Water Street, Kitchener.
Bridge over G.T.R. main line at Margaret Avenue, Kitchener.

SUMMARY OF ACCIDENTS TO PROPERTY.
December 31, 1923.

Accidents	Due to unavoidable causes		Due to carelessness of employees		Due to carelessness of other persons	
	Serious	Trivial	Serious	Trivial	Serious	Trivial
Damage to Company's property	.....	.....	.....	.....	.....	.....
Damage to property of Municipality	.....	.....	.....	.....	.....	.....
Damage to private property	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

Total amount paid during year for damages caused by accidents.....

ACCIDENTS TO PERSONS.

Killed and injured	From causes beyond their own control		From their own misconduct or carelessness		Total	
	Killed	Injured	Killed	Injured	Killed	Injured
Passengers						
Employees						
Other persons						
Totals						

STATEMENT OF EACH ACCIDENT.

WAGES STREET RAILWAY COMPANIES OR RADIAL RAILWAYS.

	No. employed	Average No. of hours on duty per day	Wages per day		
			1st yr.	2nd yr.	3rd yr.
Inspectors					
Conductors, motormen	3		$3 50	to	$4 00
Starters					
Roadmen, linemen	1 to 3		$3 50	to	$4 00
Engineers					
Blacksmiths					
Firemen					
Electricians					
Armature winders					
Machinists and mechanics					
Car cleaners					
Average number of employees					
Watchmen					
Switchmen and crossing tenders					

CORPORATE ORGANIZATION.

Corporate name and address of the Company: The Waterloo Wellington Railway Company, 86 King Street West, Kitchener, Ont.

Names and business address of principal officers: President, W. H. Breithaupt, Kitchener, Ont.; Vice-President, G. M. Shirk, Bridgeport, Ont.; Treasurer, V. B. Howden, Kitchener, Ont.

Name of Officer, and address, to whom correspondence regarding this report should be addressed: W. H. Breithaupt, President, 86 King Street West, Kitchener, Ont.

Names and residence of Board of Directors: William H. Breithaupt, Kitchener, Ont.; George M. Shirk, Bridgeport, Ont.; Harvey J. Sims, Kitchener, Ont.; Mrs. M. B. Bauman, Kitchener, Ont., Joseph H. Wuest, Kitchener, Ont.

ANALYSIS OF GROSS EARNINGS AND MISCELLANEOUS INCOME FOR YEAR ENDING DECEMBER 31, 1923.

Name of Railway.	From Passengers.	From Mail.	From Express, Parcels and Newspapers.	From Freight.	From Rentals of track, buildings and other prop'ty.	From Advertising.	From other Miscellaneous sources.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Buffalo & Fort Erie Ferry & Rly. Co.	18,274 33	.....	.....	.....	.....	.....	.....	18,274 33
Cornwall Street	30,606 95	1,400 00	.....	38,172 68	.....	555 00	1,757 25	72,491 88
Fort William	181,309 02	920 00	.....	665 25	.....	761 09	168 07	183,823 43
Guelph Radial Railway	74,223 51	.....	.....	5,885 25	1,760 00	540 00	708 33	83,117 09
Hamilton & Barton Incline	See statement							
Hamilton & Mountain Park	See statement							
Hamilton Street	1,037,081 48	.....	.....	.....	3,651 81	725 00	136 10	1,041,594 39
Hamilton & Dundas	42,905 82	193 39	419 71	26 35	3,998 94	100 00	6,570 49	54,214 70
Hamilton, Grimsby & Beamsville	128,661 81	749 04	5,115 94	26,930 32	12,955 51	350 00	1,072 64	175,835 26
Huntsville & Lake of Bays (steam)	2,433 55	35 00	4,806 80	.....	.....	110 00	2,043 70	9,429 05
International Transit	65,354 30	400 00	.....	.....	.....	390 00	496 18	66,640 48
Kingston, Portsmouth & Cataraqui	63,423 02	.....	.....	.....	1,506 00	357 50	1,331 98	66,618 50
Kitchener & Waterloo	109,805 50	3,243 08	187 93	.....	2,996 16	967 75	1,364 69	118,565 11
Lake Huron & Northern Ontario (steam)	Not operating	now.						
London Street	686,308 14	2,695 00	.....	.....	316 00	3,769 96	322 07	693,411 17
Midland & Simcoe	Operated for s	witching purp	oses only.					
Mount McKay & Kakabeka Falls	.....	.....	.....	.....	.....	.....	9,497 41	9,497 41
Niagara Falls Park and River	178,732 84	560 91	87 45	1,538 58	168 00	636 50	22,181 08	203,905 36
Port Arthur Civic	192,016 72	.....	.....	.....	111 71	1,065 76	550 00	193,744 19
Sandwich, Windsor & Amherstburg	646,970 64	3,142 51	1,793 06	54,399 68	605 73	3,841 57	4,070 50	714,823 69
Sarnia Street	63,744 64	2,212 00	3,310 30	10,547 96	1,085 00	400 00	3,766 02	85,065 92
St. Thomas Civic	24,505 26	.....	.....	.....	.....	473 84	626 25	25,605 35
Sudbury-Copper Cliff Suburban	42,689 86	.....	.....	.....	.....	560 59	5 00	43,255 45
Thurlow (steam)	.....	.....	.....	55,490 00	.....	.....	2,524 53	58,014 53
Toronto & York Radial	644,788 48	3,500 48	445 52	167,756 76	13,721 71	2,203 85	3,039 16	835,455 96
Toronto Transportation Commission	11,642,457 02	.....	.....	.....	27,724 64	128,709 14	53,443 83	11,852,334 63
Waterloo-Wellington	a8,444 46	603 68	27 55	.....	165 25	150 92	320 78	9,712 64

(a) For period up to October 3, 1923.

TABULATION OF CAR MILES RUN, PASSENGERS CARRIED, ACCIDENTS, ETC.
For Year Ending December 31, 1923.

Name of Railway	Length of track owned, miles	Length of switches and sidings, miles	Passenger car miles run	Passengers carried	Passengers carried per mile of main track operated	Accidents		Number of men employed	Passenger Cars			Other Service Cars							Loading cranes	Miscell.		Cost of railway construction, equipment, land and buildings per mile of track owned
						Killed	Injured		Enclosed Cars	Open Cars	Trailers	Baggage and mail	Cattle and box	Platform	Coal dump	Tool	Snow sweepers	Snow plows		Locomotives	Ferry boats	
Buffalo & Fort Erie Ferry & Ry. Co.	Not reported.																					
Cornwall Street	4.	2.5	191,000	651,909	162,977	....	.....	29	8	1	.....	....	....	....	....	....	1	....	....	.....	.....	43,952 83
Fort William	25.497	3.933	648,348	2,963,054	132,688	....	.....	58	18	1	5	....	....	....	....	....	1	1	....	.....	.....	42,941 40
Guelph Radial Ry.	8.490	1.560	300,532	1,326,468	156,239	....	.....	36	7	....	.....	....	....	....	....	....	1	....	....	.....	.....	41,541 96
Hamilton & Barton Incline	See statement.																					
Hamilton & Mountain Park	See statement.																					
Hamilton Street	33.7	.....	2,862,891	20,815,422	617,668	....	40	405	78	19	14	....	....	....	....	1	4	....	....	.....	.....	72,781 51
Hamilton & Dundas	6.048	1.6	143,790	694,081	90,848	....	4	31	....	....	.....	....	....	....	....	....	....	....	....	.....	.....	29,228 53
Hamilton, Grimsby & Beamsville	22.6	3.6	376,730	987,297	37,683	....	12	75	8	2	.....	4	....	....	....	....	....	....	....	.....	.....	19,051 48
Huntsville and Lake of Bays (steam)	1.438	.312	††	16,238	16,238	....	1	6	2	3	.....	2	....	5	....	....	....	....	....	.....	.....	17,804 39
International Transit.	4.97	.09	232,923	1,327,690	.....	....	.....	18	14	....	3	....	....	....	....	....	1	....	....	.....	.....	73,545 55
Kingston, Portsmouth & Cataraqui	8.	.....	199,680	202,995	25,375	....	1	19	8	12	.....	....	....	....	....	....	1	1	....	.....	.....	.....
Kitchener & Waterloo	6.04	.84	292,251	2,734,633	455,772	....	3	36	15	2	5	....	....	....	....	1	1	....	....	.....	.....	63,097 62
Lake Huron & Northern Ontario (steam)	Not operating.																					
London Street	36.10	.....	212,416	13,865,148	.....	....	.....	.....	53	8	.....	....	....	....	....	....	....	....	....	.....	.....	46,902 05
Midland & Simcoe	Operated for switching purposes only.																					
Mount McKay and Kakabeka Falls	5.	1.50	††	.....	.....	....	.....	10	....	....	2	....	....	....	10	....	....	....	....	.....	.....	55,410 89
Niagara Falls Park & River	23.116	1.370	332,634	1,950,629	79,663	....	6	56	8	19	.....	2	....	2	....	....	....	1	....	.....	.....	.....
Port Arthur Civic	18.53	1.04	613,548	3,163,863	.....	....	1	48	18	....	3	....	....	....	....	....	2	....	....	.....	.....	31,843 28
Sandwich, Windsor & Amherstburg	45.568	5.163	1,808,024	10,835,207	213,585	1	113	240	48	....	8	....	....	....	....	63	....	....	....	.....	.....	63,745 00
Sarnia Street	8.25	1.	205,694	1,118,713	120,945	....	.....	30	10	....	.....	1	....	....	....	....	....	....	....	.....	.....	28,473 66
St. Thomas Civic	6.5	.095	††	482,936	††	....	6	17	9	....	4	....	....	....	....	....	1	....	....	.....	.....	11,971 19
Sudbury - Copper Cliff Suburban	7.9	.....	106,832	562,037	71,144	1	.....	10	....	5	.....	....	....	....	....	....	....	1	....	.....	.....	27,985 75
Thurlow (Steam)	2.671	2.766	††	.....	.....	.....	.....	14	....	....	.....	....	4	2	13	....	....	....	....	.....	3	7,413 70
Toronto & York Radial	81.384	13.540	1,824,893	7,022,227	86,284	1	56	400	42	....	.....	10	....	47	2	11	....	4	....	.....	.....	29,661 08
Toronto Transportation Commission	213.711	30.370	27,231,444	189,143,145	.....	10	1,730	.....	834	225	.....	....	....	....	....	47	25	....	....	.....	.....	203,550 47
Waterloo-Well'gt'n (a)	2.8	.....	26,850	138,657	40,780	....	.....	4	....	....	.....	....	....	....	....	....	....	....	....	.....	.....	27,595 10

††Car miles not reported. (a) For period ending October 3rd, 1923.

TABULATION OF COMPARISON WITH PREVIOUS YEAR AS TO CAR MILES RUN, PASSENGERS CARRIED, ETC.

For Year Ending December 31st, 1923.

Name of Railway.	Length of Track.		Car Miles Run.		Passengers Carried.		Accidents.				Net Earnings.	
							Killed.		Injured.			
	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.
											$ c.	$ c.
Buffalo & Fort Erie Ferry & Rly. Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,001 62	.....
Cornwall Street	No change.			3,500	2,200	.....	.....	.....	.....	.....	.....	11,300 45
Fort William	1.528	.....	20,841	.....	.....	51,875	.....	.....	.....	.....	.....	b51,257 44
Guelph Radial Rly	No change.		80,556	.....	16,096	.....	.....	.....	10	.....	a8,530 70	.....
Hamilton & Barton Incline	See statement.											
Hamilton & Mountain Park	See statement.											
Hamilton Street	No change.		164,346	.....	233,046	.....	.....	.....	4	.....	.....	26,049 94
Hamilton & Dundas	No change.		.....	50,204	.....	348,521	.....	.....	.....	3	a7,831 54	.....
Hamilton, Grimsby & Beamsville	No change.		.....	6,667	.....	20,481	.....	.....	5	.....	.....	b21,219 80
Huntsville & Lake of Bays (steam)	No change.		Not reported.		.....	1,179	.....	.....	1	.....	1,835 27	.....
International Transit	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston, Portsmouth & Cataraqui	No change.		No change.		.....	678,757	.....	.....	1	.....	a4,527 54	.....
Kitchener & Waterloo	.80	.....	28,852	.....	163,043	.....	.....	.....	2	.....	.....	64 66
Lake Huron & Northern Ont. (steam)	Not operating.											
London Street	No change.		270,538	.....	451,203	.....	.....	.....	.....	.....	15,504 97	.....
Midland & Simcoe	Operated for switching purposes only.											
Mount McKay & Kakabeka Falls	No change.		††	††	Not reported	.....	.....	.....	.....	.....	a647 42	.....
Niagara Falls Park & River	No change.		59,131	.....	784,411	.....	.....	.....	.....	9	.....	b40,265 19
Port Arthur Civic	No change.		63,420	.....	41,285	.....	.....	.....	.....	5	10,770 87	.....
Sandwich, Windsor & Amherstburg	3.708	.....	308,547	.....	960,422	.....	.....	.....	.....	20	36,388 67	.....
Sarnia Street	No change.		No change.		.....	38,939	.....	.....	.....	.....	8,234 42	.....
St. Thomas Civic	No change.		.....	.....	.....	66,865	.....	1	2	.....	.....	b5,384 14
Sudbury-Copper Cliff Suburban	No change.		411	.....	36,549	.....	1	.....	.....	.....	2,054 54	.....
Thurlow (steam)	No change.		††	††	.....	.....	.....	1	.....	.....	.....	7,924 74
Toronto & York Radial	Not reported last year.											
Toronto Transportation Commission	Previous report extended over a period of 16 months, therefore no comparison is made for this year.											
Waterloo-Wellington	cNo change.		.....	8,950	.....	32,824	.....	.....	.....	.....	a540 52	.....

(a) Decrease in deficit on year's operation.
(b) Increase in deficit on year's operation.
(c) For period ending October 3, 1923.
†† Car miles not reported.

TABULATION OF OPERATING COSTS FOR THE YEAR ENDING DECEMBER 31, 1923.

Name of Railway.	General Expenses.	Maintenance Roadbed and Buildings.	Maintenance Equipment.	Motive Power.	Wages.	Damages to persons and property.	Miscellaneous.	Total.	Operating cost per car mile run.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	cents.
Buffalo & Fort Erie Ferry & Rly. Co.	7,776 22	.....	2,894 57	3,524 14	.....	.....	.....	14,194 93	.....
Cornwall Street	7,194 12	3,542 19	11,302 09	3,048 03	18,476 25	255 41	1,664 35	45,482 44	21.413
Fort William	18,331 89	17,075 77	28,696 16	21,398 54	61,106 04	.....	2,404 87	150,013 27	23.137
Guelph Radial Rly	15,816 96	7,991 17	11,269 68	8,040 46	21,036 22	37 39	1,071 51	65,263 39	21.715
Hamilton & Barton Incline	See statement.								
Hamilton & Mountain Park	See statement.								
Hamilton Street	42,523 73	63,667 57	125,996 92	86,660 04	390,724 30	37,246 95	89,534 86	836,354 37	29.213
Hamilton & Dundas	6,519 18	14,327 92	1,231 18	8,425 30	19,954 78	985 34	15,680 15	67,123 85	46.751
Hamilton, Grimsby & Beamsville	16,297 20	36,204 38	25,736 66	30,088 05	56,461 50	4,813 69	33,612 72	203,214 20	53.942
Huntsville & Lake of Bays	251 23	200 00	521 74	.....	2,297 95	.....	990 36	4,261 28	††
International Transit	6,733 25	3,466 42	5,672 45	8,820 00	13,321 93	.....	4,260 11	42,274 16	18.141
Kingston, Portsmouth & Cataraqui	10,476 89	5,434 56	14,415 78	6,485 76	22,747 44	474 09	800 53	60,835 05	30.466
Kitchener & Waterloo	12,082 02	8,212 39	8,233 30	12,733 08	43,150 88	489 55	132 87	85,034 09	29.096
Lake Huron & Northern Ontario	Not operating.								
London Street	35,498 00	86,124 90	82,468 49	43,882 15	273,305 21	22,729 05	28,074 29	572,082 09	26.932
Midland & Simcoe	Operated for switching purposes only.								
Mt. McKay & Kakabeka Falls	1,845 84	.....	279 31	.....	679 32	.....	3,585 53	6,390 00	††
Niagara Falls Park & River	63,731 52	30,470 20	16,183 69	13,324 20	57,560 09	15,493 80	8,327 73	205,091 23	61.657
Port Arthur Civic	10,766 17	13,680 58	32,027 70	20,143 50	35,174 28	240 15	10,625 35	122,657 73	19.991
Sandwich, Windsor & Amherstburg	78,983 71	51,148 83	83,987 94	71,538 91	215,113 61	177 98	12,811 24	513,762 22	28.415
Sarnia Street	8,949 15	5,445 15	12,402 11	10,359 63	16,554 68	.....	15,674 26	69,384 98	32.210
St. Thomas Civic	7,205 41	1,553 32	2,051 08	5,997 68	22,480 27	.....	138 88	39,426 64	††
Sudbury-Copper Cliff Suburban	7,549 43	2,240 99	3,524 72	5,000 40	13,159 60	35,271 98	3,796 84	35,271 98	33.016
Thurlow (steam)	.....	26,185 29	6,007 19	.....	10,929 10	.....	8,364 27	51,485 85	††
Toronto & York Radial	137,380 27	135,650 51	106,998 79	154,789 17	262,695 98	51 79	33,970 69	831,537 20	45.566
Toronto Transportation Com	575,886 19	589,675 12	1,118,874 28	1,044,518 42	4,261,540 33	123,212 55	451,279 44	8,164,986 33	29.987
Waterloo-Wellington	a2,293 73	499 04	724 59	2,686 29	2,375 50	.....	135 67	8,714 82	32.457

††Car miles not reported.
(a) In period ending October 3, 1923.

TABULATION OF CHARGES OTHER THAN OPERATING COSTS FOR YEAR ENDING DECEMBER 31ST, 1923.

Name of Railway	Interest on Funded Debt	Interest and Discount on Unfunded Debt	Taxes	Transfer to Special Accounts	All Charges other than Operating Costs	Total Expenditure excluding Operating Costs	Total Expenditure including Operating Costs	Total Revenue from all sources	Per Car mile run		Net Deficit from year's Operation	Net Surplus from year's Operation
									Total Expenditure	Total Revenue		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ $ c.	$ c.	cents	cents	$ c.	$ c.
Buffalo & Fort Erie Ferry & Ry. Co.	.....	.....	.....	.....	2,014 42	2,014 42	16,209 35	18,274 33	.....	.....	.....	2,064 98
Cornwall Street	4,550 00	.....	1,201 25	10,000 00	17,143 58	(d) 5,846 61	(d) 51,329 05	72,491 88	d24.166	34.129	.....	11,162 83
Fort William	65,184 34	.....	.....	29,906 86	95,091 20	65,184 34	215,197 61	183,823 43	33.191	28.368	61,281 04	.....
Guelph Radial	29,081 00	.....	2,373 49	.....	44,436 61	31,454 49	96,717 88	83,117 09	32.182	27.656	13,600 79	.....
Hamilton & Barton Incline	See statement.											
Hamilton & Mountain Park	See statement.											
Hamilton Street	13,477 80	8,015 37	113,802 11	.....	135,295 28	135,295 28	971,649 65	1,041,594 39	33.936	36.385	.....	69,944 74
Hamilton & Dundas	5,000 00	608 68	1,958 33	.....	7,567 01	7,567 01	74,690 86	54,214 70	51.945	37.704	20,476 16	.....
Hamilton, Grimsby & Beamsville	7,500 00	14,147 98	5,454 38	.....	46,619 00	27,102 36	230,316 50	175,835 26	61.136	46.674	54,481 30	.....
Huntsville & Lake of Bays	.....	.....	50 00	.....	†2,274 00	†2,274 00	†6,535 28	9,429 05	††	††	.....	†2,893 77
International Transit	2,125 00	9,502 14	1,043 27	20,000 00	33,038 43	d13,038 43	cd87,349 45	d115,881 31	d23.876	28.611	.....	8,531 86
Kingston, Portsmouth and Cataraqui	4,000 00	.....	1,064 27	2,663 31	7,727 58	d5,064 27	d65,899 32	66,618 50	d33.002	33.362	1,944 13	.....
Kitchener & Waterloo	13,147 24	.....	411 67	17,972 11	31,531 02	d13,558 91	d98,593 11	118,565 11	d33.736	40.569	.....	2,000 00
Lake Huron & Northern Ont.	Not operating.											
London Street	23,750 00	3,455 46	9,881 16	37,364 58	†111,037 38	†d73,672 80	†d645,754 89	693,411 17	†d30.405	†32.644	.....	†10,291 70
Midland & Simcoe	Operated for switching purposes only.											
Mount McKay & Kakabeka Falls	.....	9 13	448 21	.....	23,470 28	23,470 28	27,735 13	9,497 41	††	††	18,237 72	.....
Niagara Falls Park & River	30,000 00	.....	8,416 92	.....	90,545 88	90,545 88	295,637 11	203,905 36	88.877	60.999	91,731 75	.....
Port Arthur Civic	29,562 30	1,194 84	.....	28,242 84	58,999 98	d30,757 14	d153,414 87	193,744 19	d25.004	31.577	12,086 48	.....
Sandwich, Windsor & Amherstburg	153,433 00	.....	3,360 00	.....	157,615 02	156,793 00	670,555 22	714,823 69	37.087	39.536	.....	44,268 47
Sarnia Street	5,939 50	960 83	2,169 98	.....	9,070 31	9,070 31	75,324 48	85,065 92	36.615	41.355	.....	9,741 44
St. Thomas Civic	5,215 33	96 75	.....	.....	5,312 08	5,312 08	44,738 72	25,605 35	††	††	19,133 37	.....
Sudbury, Copper Cliff Suburban	4,500 00	3,200 00	137 60	.....	7,837 60	7,837 60	43,109 58	43,255 45	40.350	40.405	.....	145 87
Thurlow (steam)	.....	.....	26 70	2,519 27	7,545 97	d5,026 70	d56,512 55	58,014 53	††	††	1,017 29	.....
Toronto & York Radial	142,500 00	52,987 58	14,353 93	.....	354,618 45	209,841 51	1,041,378 71	835,455 96	57.065	45.781	205,922 75	.....
Toronto Transportation Commission	2,092,961 66	27,435 21	62,906 51	1,144,418 92	3,687,553 69	d2,418,090 83	d10,583,077 16	11,852,334 63	d38.863	43.524	.....	124,838 55
Waterloo-Wellington.....(a)	3,600 00	971 60	370 45	.....	4,942 05	4,942 05	13,656 87	9,712 64	50.863	36.173	3,944 23	.....

†† Car miles not reported.
† Includes dividends when paid.
(a) For period ending October 3rd, 1923.
(b) Includes $49,240.83 gross earnings from Ferry operation.
(c) Includes $32,036.86 operating expenses on Ferry operation.
(d) Does not include special accounts.

TABULATION OF ASSETS AND LIABILITIES AS OF DECEMBER 31, 1923.

Name of Railway.	Assets.				Liabilities.					Surplus.
	Authorized Capital Stock.	Cost of Railway Equipment, Land and Buildings	Cash and other Assets.	Deficit.	Capital Stock outstanding.	Funded Debt.	Current Liabilities.	Accrued Liabilities.	Reserve and other Special Funds.	
	$	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Buffalo & Fort Erie Ferry & Rly. Co.	.....	96,235 79	2,578 60	1,185 61	100,000 00	.....	.....	.....	.....	.....
Cornwall Street	200,000 00	285,693 41	11,815 17	.....	200,000 00	65,000 00	1,387 63	.....	20,205 71	10,915 24
Fort William	.....	1,092,000 00	705,381 21	.....	.....	1,317,000 00	7,558 92	16,045 21	456,777 08	.....
Guelph Radial	.....	417,496 79	31,295 34	2,550 68	.....	289,760 83	142,042 81	9,300 00	10,239 17	.....
Hamilton & Barton Incline	See statement.									
Hamilton & Mountain Park	See statement.									
Hamilton Street	1,205,000	2,452,737 99	6,641 99	.....	1,205,000 00	280,000 00	271,642 64	310 65	347,189 78	355,236 91
Hamilton & Dundas	100,000	223,539 82	3,394 62	53,046 41	100,000 00	100,000 00	44,387 87	.....	35,592 98	.....
Hamilton, Grimsby & Beamsville	235,000	499,148 81	6,504 79	297,320 31	235,000 00	150,000 00	280,652 83	1,250 00	136,071 08	.....
Huntsville & Lake of Bays	50,000	31,157 69	3,970 00	.....	27,800 00	.....	1,847 67	.....	5,480 02	.....
International Transit	150,000	b569,727 74	18,929 74	.....	150,000 00	50,634 39	150,379 50	685 85	160,938 65	76,019 09
Kingston, Portsmouth & Cataraqui	.....	.....	.....	.....	83,100 00	100,000 00	1,015 76	2,000 00	16,378 77	23,117 61
Kitchener & Waterloo	.....	434,111 65	21,664 00	.....	.....	241,733 46	3,511 04	65,394 71	143,136 44	2,000 00
Lake Huron & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
London Street	750,000	1,693,164 22	64,468 50	.....	637,480 00	477,000 00	166,339 30	12,257 07	345,538 33	119,018 02
Midland & Simcoe	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mount McKay & Kakabeka Falls	500,000	360,170 80	68,450 87	45,840 17	386,955 00	.....	3 92	.....	87,502 92	.....
Niagara Falls Park & River	The International Rly. Co., with which this company is now operated, reports inability to furnish data for tabulation.									
Port Arthur Civic	.....	623,173 16	430,050 20	.....	623,173 16	.....	42,863 26	18,228 91	356,871 55	12,086 48
Sandwich, Windsor & Amherstburg	600,000	3,233,801 99	183,451 11	.....	397,000 00	189,000 00	1,507,412 87	25,157 70	1,243,839 58	54,842 95
Sarnia Street	100,000	263,381 41	2,146 29	.....	90,000 00	90,700 00	11,000 00	.....	.....	73,827 70
St. Thomas Civic	.....	78,950 00	425 00	.....	.....	‡110,323 00	.....	.....	.....	.....

TABULATION OF ASSETS AND LIABILITIES AS OF DECEMBER 31, 1923—*Continued.*

Name of Railway.	Authorised Capital Stock.	Assets			Liabilities.					Surplus.
		Cost of Railway Equipment, Land and Buildings	Cash and other Assets.	Deficit.	Capital Stock outstanding.	Funded Debt.	Current Liabilities.	Accrued Liabilities.	Reserve and other Special Funds.	
Sudbury-Copper Cliff Suburban	250,000	221,087 48	106,766 37	.....	173,100 00	75,000 00	53,267 78	.....	.....	26,486 07
Thurlow (steam)	50,000	40,308 32	46,043 59	.....	25,000 00	.....	.....	.....	.....	61,351 91
Toronto & York Radial	.....	2,815,548 81	253,957 76	238,153 65	.....	2,375,000 00	908,200 97	24,459 25	.....	.....
Toronto Transportation Commission*	.....	43,500,974 86	7,902,559 74	.....	.....	c35,107,340 65	1,304,524 00	141,292 24	5,080,833 21	109,263 60
Waterloo-Wellington	a400,000	77,266 30	1,144 15	21,007 54	19,200 00	.....	14,217 99	.....	66,000 00	.....

‡Municipal Debentures.
aFor period ending October 3, 1923.
bIncludes ferry boats and other equipment.
cIncludes $462,000, real estate mortgages.
*Contingent Liability re Toronto Railway Co. award and interest thereon, less payment on account, $9,660,280.90.

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TELEPHONE SYSTEMS 1924

BEING AN APPENDIX TO THE REPORT OF THE ONTARIO RAILWAY AND MUNICIPAL BOARD FOR 1923

STATISTICAL INFORMATION RELATIVE TO THE TELEPHONE SYSTEMS WITHIN THE JURISDICTION OF ONTARIO

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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THE ONTARIO RAILWAY AND MUNICIPAL BOARD

*REPORT OF THE SUPERVISOR OF TELEPHONE SYSTEMS FOR THE YEAR 1923

The following applications under the provisions of "The Ontario Telephone Act, 1918," were dealt with by the Board in 1923:

Under Section 3c: For authority to issue debentures for extensions and improvements to Telephone Systems under Part I	2
Under Section 7: For authority to remove signatures from petitions to Municipal Councils praying for the establishment of a telephone system	5
Under Section 13: For the approval of municipal by-laws providing for the establishment of telephone systems	12
Under Section 18: For the approval of municipal debenture by-laws to meet the cost of establishing or extending telephone systems	21
Under Section 19: For an extension of the period within which municipal debenture by-laws respecting telephone systems may be passed	5
Under Section 20: For an extension of the period in which to repay the debenture debt to meet the cost of establishing or extending telephone systems	1
Under Section 21: For authority to pass municipal debenture by-laws to meet the cost of reconstructing, replacing or altering telephone systems	6
Under Section 23: For authority to issue debentures for repayment of a portion of the Principal and Interest in respect of the cost of establishing a telephone system	1
Under Section 24: For the approval of the purchase of an existing telephone system by a municipality	8
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Under Section 67: For the approval of municipal by-laws granting the right to erect poles and wires upon the highways	41
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Under Section 74a: For the approval of the by-laws of a telephone company	7
Under Section 75: For an order requiring the reconstruction of a telephone system to ensure the provision of efficient service	1
Under Section 78: For the consent to erection of poles and wires parallel with existing lines	3
Under Section 79: For an order preventing the duplication of pole leads upon the same highway	3
Under Section 80: For an order fixing the terms and conditions for furnishing service	2
Under Section 82: For the approval of agreements providing for interchange of service	85
Under Section 83: For an order fixing the terms and conditions for interchange of service	2
Under Section 86: For approval of agreements eliminating competition between telephone systems	9
Under Section 87: For the approval of the sale of telephone systems	6
Under Section 88: For authority to increase the charges for telephone service	43
Under Section 94: For authority to issue capital stock or bonds	3
Under Section 93: For authority to expend a portion of the moneys set aside for depreciation, upon new construction or extensions	1
Under Section 107: Complaining of the parallelling of existing pole leads without the consent of the Board	2
Total Number of Applications	276

*This report, as also the information on pages 3 to 16 inclusive, is contained in the annual report of the Board for the year ending December 31st, 1923.

The Board or its Supervisor of Telephone Systems during the year visited one hundred and eight different points in the Province in connection with the foregoing applications.

The continued policy of the Board in endeavouring to secure an amicable settlement of matters in dispute between the applicant and respondent has, with the assistance of the Board's Supervisor, proved successful in the majority of such cases.

In addition to the applications and complaints referred to, a vast amount of correspondence relating to telephone matters has been dealt with by the Board's Supervisor, through the medium of which much information and assistance has been given to municipalities, companies and other persons interested, and many difficulties that might otherwise have necessitated a formal application and public hearing have been satisfactorily adjusted.

Forty-four points were visited by the Board's Inspector of Telephone Service during the year for the purpose of investigating complaints made by subscribers, and upon his report and recommendation the Board has been enabled to secure considerable improvement in the telephone service furnished by the systems coming under his observation.

The establishment of telephone systems by the rural municipalities under the provisions of Part II of "The Ontario Telephone Act, 1918," continues to grow in favour with the public. There are now one hundred and thirteen of these systems being operated or under construction. These systems are furnishing service in two hundred and forty-six towns, villages and townships.

There are nine systems owned and operated by municipalities under the provisions of Part I of the Act, viz.: The cities of Fort William and Port Arthur, the towns of Cochrane, Kenora, Fort Frances and Rainy River, and the Townships of Alberton, Caledon and Hilliard.

The number of telephone systems of which the Board has record is six hundred and thirty-seven, operating approximately 104,000 telephones and representing an investment of about $10,100,000. While the actual number of systems is less than in 1922, this is due to the merging of some of the smaller systems for the purpose of incorporation under "The Ontario Companies Act."

F. Dagger,
Supervisor of Telephone Systems.

LIST OF APPLICATIONS IN RESPECT OF TELEPHONES DURING 1923.

		Procedure File.
Jas. A. Alexander	Approval Agreement for purchase of certain telephone plant, etc., from Elhanan Bowman	8,130
Anger Telephone System, *et al*	South Walsingham Telephone Co., Ltd., *vs.* interchange of service and pin space	8,272
Alice and Fraser, Township of	Approval By-law 4 (1922), use of highways to the Tenth Concession Alice and Fraser Telephone Co.. Ltd	8,288
Adelaide Telephone System	*See* "Morgan, M. C. and R."	
Adelaide Telephone Co., Ltd	Agreement of sale of Adelaide System to	8,298
Arden & Long Lake Telephone System	Increased charges	8,327
Amabel, Township of	Increased charges	8,328
Arden & Long Lake Telephone System	*See* "Barker, Edward."	
Austin, D. S. (Murray Brighton Telephone System)	Application for approval agreement of sale to: by Bell Telephone Co. of Canada, Ltd., of certain plant and equipment in Village of Frankford and Township of Sydney	8,556
Alice and Fraser, Township of	Approval By-law granting use of certain highways to the Petawawa Rural Telephone Co., Ltd	8,638
Albemarle, Township of	Approval By-law 628, use of highways to "The Cecil Swale Telephone Association	8,704
Amabel, Township of	Approval By-law 282, use of certain highways to "The Cecil Swale Telephone Association"	8,705
Alberton, Township of	Approval By-law No. 63, issue of debentures to meet cost of certain extensions to its Municipal Telephone System	8,773
Ansonville Telephone Co., Ltd	Approval By-law No. 56 of Township Calvert, granting use of certain highways to	8,826
Austin, D. S	*Vs.* United Counties of Northumberland and Durham—Obstruction on highway, Prov. Co. Road No. 38, Township Murray	8,806
Beckwith & Montague Rural Telephone Co., Ltd	*Vs.* Harold F. McLachlin—Extension of applicants' system and use of poles of Respondent	8,068
Belmont & Methuen, United Townships of	Approval By-law No. 630, establishment of telephone system	8,104
Beckwith, Township of	Approval By-law No. 482, use of certain highways to The Lanark & Ramsay Telephone Co., Ltd	8,110
Belmont & Methuen, United Townships of	Approval purchase of certain telephone plant, etc., from Bell Telephone Co. of Canada, Ltd	8,128
Belmont & Methuen, United Townships of	Approval purchase of certain telephone plant, etc., from the Havelock Cordova Telephone Co., Ltd	8,129
Bell Telephone Co. of Canada, Ltd	Approval purchase from, of certain telephone plant and equipment by United Township Belmont and Methuen	8,128
Bowman, Elhanan	Approval Agreement for purchase from, by J. A. Alexander, of certain telephone plant, etc	8,130
Bayham, Township of	Approval By-law No. 843, use of highways to Houghton, Bayham and Tilsonburg Telephone Co., Ltd	8,171
Bethesda and Stouffville Telephone Co., Ltd	Bond issue (not over $40,000.00)	8,198
Bell Telephone Co. of Canada, Ltd	Purchase by South Malahide Telephone Co., Ltd., of local system in Town of Aylmer	8,214

		Procedure File.
Bell Telephone Co. of Canada, Ltd.	Approval sale to Joseph and Leslie Davis of certain telephone plant in Village of Eganville	8,240
Bell Telephone Co. of Canada, Ltd.	Approval sale to John Russell Bell and Ila S. Bell of certain telephone plant in Village of Millbrook	8,241
Bell, John Russell and Ila S.	Approval sale to, by Bell Telephone Co., Ltd., of certain telephone plant, etc., in Village of Millbrook	8,241
Bethune (unorganized), Township of, *et al*	Use of highways to the Muskoka & Parry Sound Telephone Co., Ltd	8,242
Belmont & Methuen, Municipality of	Removal of name of E. J. Stevens from Petition praying for establishment of telephone system	8,258
Brighton, Township of	Approval By-law 666, extension of telephone system to furnish service to non-landowners	8,259
Brighton, Township of	By-law 667, extensions to its telephone system	8,261
Blue, Township of	By-law No. 66, use of highways to Geo. E. Wood	8,267
Bell Telephone Co. of Canada, Ltd.	Sale to Wroxeter Rural Telephone Co., Ltd., of plant, etc., located in Village of Gorrie	8,299
Blanchard, E.	Increased charges for telephone service	8,345
Barber, Edward	*Vs.* Verona & Frontenac Telephone Co., Ltd., interchange of service	8,372
Bruce, Township of	Authority to pass By-law for reconstruction, etc., of telephone system and debenture issue therefor	8,374
Bell, Jno R. and Ila S.	Approval of agreement for sale of certain telephone plant, etc., to Millbrook Rural Telephone Co., Ltd	8,409
Bruce, Township of	Approval By-law 359, new debenture issue to provide for portion of principal and interest due *re* debentures under By-law 168	8,420
Bell Telephone Co. of Canada, Ltd.	Approval Agreement for sale of certain telephone plant and equipment to the Township of Howick	8,436
Brant, Township of	Approval By-law 3 (1921), use of highways to the South Line Brant Rural Telephone Co., Ltd	8,438
Bell Telephone Co. of Canada, Ltd.	Approval two agreements for sale of certain telephone plant and equipment to The Leeds & Grenville Independent Telephone Co., Ltd	8,468
Bell Telephone Co. of Canada, Ltd.	Approval Agreement for sale of certain plant and equipment to The West Garafraxa Telephone Co-operative Association, Ltd	8,499
Bell Telephone Co. of Canada, Ltd.	Approval Agreement for sale to South Bruce Rural Telephone Co., Ltd., of certain telephone plant and equipment located in Villages of Mildmay and Teeswater, and Townships of Carrick and Culross	8,522
Bell Telephone Co. of Canada, Ltd.	Approval Agreement for sale to D. S. Austin (Murray-Brighton Telephone System) of certain plant and equipment in the Village of Frankford, and the Township of Sidney	8,556
Byron Telephone Co	Application for authority to parallel pole leads of the United Telephone Co., Ltd., Township of Lobo	8,566
Bathurst, Township of	Approval By-law 1,006, use of highways to the Balderson Telephone Co., Ltd.	8,594
Balderson Telephone Co., Ltd.	Approval By-law No. 1,006, Township Bathurst, use of highways to	8,594
Balderson Telephone Co., Ltd.	Approval By-law No. 330, Township Drummond, use of highways to	8,595

		Procedure File.
Bruce Municipal Telephone System	Increased charges	8,608
Bruce, Township of	Certain alterations to its Municipal Telephone System and authority to pass By-law providing for same	8,610
Bracebridge & Muskoka Lakes Telephone Co., Ltd	Increased charges	8,709
Bell Telephone Co. of Canada, Ltd	Approval of purchase from, of certain telephone plant by Commissioners for telephone system of Municipality of Township of Tay	8,718
Bruce, Township of	Approval By-law No. 362, providing for issue of debentures to meet cost of certain reconstruction replacements and alterations to Bruce Municipal Telephone System	8,759
Black Lake Telephone Co., Ltd	Approval By-law No. 493, Township of North Elmsley, granting use of highway to	8,771
Black Lake Telephone Co., Ltd	Approval By-law No. 709, Township of North Burgess, use of highways to	8,772
Bell Telephone Co. of Canada, Ltd	Approval of purchase from, of certain telephone plant by Commissioners for Telephone System of Municipality of Hungerford	8,797
Bruce, Township of	Purchase of certain telephone plant of Bell Telephone Co. of Canada, Ltd., located in Town of Kincardine, Village of Elgin and Paisley, and Townships Elderslie, Saugeen and Greenock	8,821
Bell Telephone Co. of Canada, Ltd	Purchase of certain telephone plant of Bell Telephone Co. of Canada, Ltd., located in Town of Kincardine, Village of Elgin and Paisley, and Townships Elderslie, Saugeen and Greenock	8,821
Burgessville Telephone Co., Ltd	Approval sale of system to Township North Norwich	8,834
Brudenell & Lynedoch, Municipality of	Establishment of telephone system under part II of Act	8,865
Brudenell & Lynedoch, Municipality of	Approval Agreement for sale to, of certain telephone plant and equipment by Michael Roche and Daniel J. Ryan	8,867
Cochrane, Town of	Approval By-law No. 288, extension and improvement to Cochrane Municipal Telephone System	8,101
Christie, Township of	Approval By-law No. 122, establishment of Municipal Telephone System	8,133
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Centralia—Mount Carmel Telephone Co., Ltd	Approval By-law No. 3, Township McGillivray, granting use of highways to	8,204
Caledon, Township of	Authority to charge a re-installation fee	8,263
Christie, Township of	Approval By-law No. 120, granting use of certain highways to The Spencer Monteith Telephone Co., Ltd	8,320
Cavan Rural Telephone Co., Ltd	Increased charges	8,375
Coldstream Telephone System	*See* "A. G. McKenzie."	
Cramahe Municipal Telephone System	Increased charges	8,469
Chapleau, Township of	Approval By-law No. 131, granting use of highways to The Chapleau Automatic Telephone Co., Ltd	8,497
Chapleau Automatic Telephone Co., Ltd., The	Approval By-law No. 131, Township of Chapleau, granting use of highways to	8,497
Clark, C. J	Approval sale to, by Kaladar Northern Telephone Co. of certain telephone plant and equipment	8,725
The Cavan Rural Telephone Co., Ltd	Approval Agreement with The Millbrook Rural Telephone Co., Ltd	8,743
Cormac & Eganville Telephone Co., Ltd	Approval By-law No. 337, Township of Grattan, use of certain highways to	8,769

		Procedure File.
Cormac & Eganville Telephone Co., Ltd.	Approval By-law No. 93, Township of South Algona, granting use of certain highways to	8,770
Calvert, Township of	Approval By-law No. 56, use of certain highways to the Ansonville Telephone Co., Ltd.	8,826
Drummond, Township of	Approval By-law No. 340, use of certain highways to The Lanark & Ramsay Telephone Co., Ltd.	8,111
Dysart, Municipality of	Approval By-law No. 697, establishment of telephone system	8,215
Davis, Joseph and Leslie	Approval of purchase of certain telephone plant in Village of Egansville from Bell Telephone Co. of Canada, Ltd.	8,240
Dummer, Township of	Approval By-law 919, extension to its telephone system	8,268
Dysart Municipal Telephone System	Removal of name of Clare H. Sisson from Petition	8,483
Dungannon, Township of	Removal of names of Matthew McLean and others from Petition for establishment of telephone system	8,513
Doe Lake Telephone Co., Ltd	Application by Commissioners for Telephone System of the Township of Ryde for authority to parallel pole leads of	8,539
Dover, Municipality of	Application by Commissioners, approval charges for service for telephone system of	8,564
Drummond, Township of	Approval By-law No. 330, use of highways to the Balderson Telephone Co., Ltd.	8,595
Dysart, Municipality of	Establishment of telephone system	8,609
Dungannon, Township of	Extension of time (over period of fifteen years) for payment of debentures to provide cost of establishing Dungannon Municipal Telephone System	8,662
Dungannon, Township of	Approval By-law No. 46, issue of debentures to meet cost of establishing Municipal Telephone System	8,715
Dungannon, Township of	Application for extension of period to pass debenture By-law for establishment of Dungannon Municipal Telephone System	8,801
Dungannon Municipal Telephone System	Application by Township Dungannon for extension of period to pass debenture By-law for establishment of	8,801
Dungannon, Township of	Approval By-law No. 50, issue of debentures to meet cost of establishing the Dungannon Municipal Telephone System	8,852
Erin, Township of	Approval Agreement with Robert Henry Edgar Telephone Co., Ltd., pin space	8,107
Edgar, Robert Henry, Telephone Co., Ltd.	Approval Agreement with Township Erin, pin space	8,107
East Luther Telephone Co., Ltd	Issue of capital stock $760.00	8,371
Euphrasia Municipal Telephone System	Increased charges	8,536
East Luther Telephone Co., Ltd	*Vs.* Robert Henry Edgar—Paralleling of pole leads of applicant	8,818
Edgar Robert Henry; East Luther Telephone Co., Ltd. *vs*	Paralleling of pole leads of applicant	8,818
Elderslie, Township of	Approval By-law 10 (1923), use of certain highways to the Progressive Telephone Co., Ltd.	8,833
Fordwich Rural Telephone Co., Ltd., *et al*	*Vs.* Wroxeter Rural Telephone Co., Ltd., terms, etc., for interchange of service	8,103
Fort Frances, Town of	Rainy River International Telephone Co., Ltd., restoration of telephone connection	8,168
Fenella Rural Telephone Co., Ltd	Approval Agreement for interchange of service with the Harwood Rural Telephone Co., Ltd	8,264

		Procedure File.
Frankford, Village of	Approval By-law No. 49 (1923), granting use of highway to The Murray Brighton Telephone Co., Ltd	8,498
Faraday, Municipality of	Conversion of system from grounded circuits to metallic circuits and issue of debentures therefor	8,516
Fordwich Rural Telephone Co., Ltd	Sale to Municipality of Howick of certain telephone plant and equipment	8,535
Fletcher, A. C., *et al*	*See* "Kaladar Northern Telephone Co."	
Fallis Line Telephone Co., Ltd	Approval Agreement with the Millbrook Rural Telephone Co., Ltd	8,741
Gore "G" Telephone Co., Ltd	Use of pin space by People's Mutual Telephone Co., Ltd	8,199
Grattan, Township of	Approval By-law 337, use of certain highways to The Cormac & Eganville Telephone Co., Ltd	8,769
Havelock-Cordova Telephone Co., Ltd	Approval purchase from, by United Townships of Belmont & Methuen of certain telephone plant, etc	8,129
Houghton, Township of	Approval By-law No. 458, use of highways to The Houghton, Bayham and Tillsonburg Telephone Co., Ltd	8,170
Houghton, Bayham & Tillsonburg Telephone Co., Ltd	Approval By-law No. 458 of Township Houghton, use of highways to	8,170
Houghton, Bayham & Tillsonburg Telephone Co., Ltd	Approval By-law No. 843, Township of Bayham, use of highways to	8,171
Houghton, Bayham & Tillsonburg Telephone Co., Ltd	Approval By-law No. 386, Township of Middleton, use of highways to	8,172
Houghton & Bayham Telephone Co., Ltd	South Malahide Telephone Co., Ltd., terms for interchange of service and switchboard operation at Port Burwell	8,217
Herrington, T. H	Increased charges for telephone service	8,243
Harwood Rural Telephone Co., Ltd	Approval Agreement for interchange of service with the Fenella Rural Telephone Co., Ltd	8,264
Howick, Township of	Approval By-law 3 (1923), establishment of telephone system	8,289
Hungerford, Township of	Approved By-law No. 280, establishment of telephone system	8,340
Humphrey Municipal Telephone System	Increased charges	8,405
Howick, Township of	Approval Agreement for sale to, by Bell Telephone Co. of Canada, Ltd., of certain telephone plant and equipment	8,436
Howland Municipal Telephone System	Increased charges	8,476
Howick, Municipality of	Approval sale to, by Fordwich Rural Telephone Co., Ltd., of certain telephone plant and equipment	8,535
Haviland, Wm., *et al* (Windham Telephone System)	Application Norfolk County Telephone Co., Ltd., approval agreement with	8,551
Hardinge, Jno. R., *et al*	Approval Agreement for sale of certain telephone plant and equipment to Chas. S. Rollins, *et al*	8,596
Hungerford, Municipality of	Approval of purchase from Bell Telephone Co. of Canada, Ltd., of certain telephone plant and equipment	8,797
Hay, Township of	Approval By-law 15 (1923), extension to Municipal Telephone System, etc	8,866
Ice Lake Telephone Co., Ltd	Amendment to its by-laws	8,148
Ingersoll Telephone Co., Ltd	Paralleling of lines of telephone system of Geo. R. Miller	8,423
Janetville Telephone Association, *et al*	Price to be offered by Municipality of Manvers for certain telephone plant and equipment	8,156
Johnson Municipal Telephone System	Approval charges for service	8,602
King Telephone Co., Ltd	Approval sale of system, etc., to Woodbridge & Vaughan Telephone Co., Ltd	8,232

		Procedure File.
Kaladar Northern Telephone Co.	Approval sale of certain plant and equipment to C. J. Clark	8,725
Lanark, Township of	Approval By-law 434, use of certain highways to The Lanark & Ramsay Telephone Co., Ltd	8,108
Lanark & Ramsay Telephone Co., Ltd	Approval By-law No. 434 of Township Lanark, use of certain highways	8,108
Lanark & Ramsay Telephone Co., Ltd	Approval By-law No. 780, Township Ramsay, use of certain highways	8,109
Lanark & Ramsay Telephone Co., Ltd	Approval By-law No. 482, Township Beckwith, use of certain highways to	8,110
Lanark & Ramsay Telephone Co., Ltd	Approval By-law No. 340, Township Drummond, use of certain highways to	8,111
London, Township of	Fixing of price to be offered to United Telephone Co., Ltd., for its plant and equipment	8,303
Lily Creek Telephone Co., Ltd	Approval By-law No. 575 of Township Marmora and Lake, use of certain highways to	8,330
Lake Charles Telephone Co., Ltd	Increased charges	8,464
Leeds & Grenville Independent Telephone Co., Ltd	Approval two agreements providing for sale of certain plant and equipment by The Bell Telephone Co. of Canada, Ltd., to	8,468
Laird Municipal Telephone System	Approval charges for service	8,604
Laird, Township of	Authority to pass By-law for reconstruction, etc., of The Laird Municipal Telephone System	8,704
Laird Municipal Telephone System	Reconstruction of	8,704
Little Britain Telephone Co., Ltd	Approval By-laws regarding control and management of systems	8,761
Minden, Township of	Approval By-law No. 371, providing for issue of debentures to meet cost of establishing Minden Municipal Telephone System	8,102
Muskoka & Parry Sound Telephone Co., Ltd.	Approval Township Perry By-law No. 172, use of highways to	8,155
Manvers, Municipality of	Fixing of price to be offered the Pontypool Telephone Light and Power Co. *et al.*, for certain telephone plant and equipment	8,156
Monteith (unorganized), Township of	Use of highways by Spence Monteith Telephone Co., Ltd	8,163
Middleton, Township of	Approval By-law No. 386, use of highways to Houghton, Bayham and Tillsonburg Telephone Co., Ltd	8,172
Monteagle & Herschel, Municipality of	Approval By-law No. 543, issue of debentures for installation of telephone system	8,237
Muskoka & Parry Sound Telephone Co., Ltd.	Use of highways in unorganized Township of Proudfoot, Bethune and Monteith.	8,242
Monteith (unorganized), Township of, *et al*	Use of highways to Muskoka and Parry Sound Telephone Co., Ltd	8,242
Medonte Municipal Telephone System	Increased charges	8,269
Maidstone, Township of	Increased charges	8,270
Morgan, Meredith C.; Wm. Robert Snell *vs*	Telephone service	8,275
Morgan, Meredith C., and Richard	Agreement of sale to Adelaide Telephone Co., Ltd., of Adelaide Telephone System	8,298
Maberley Telephone Co., Ltd	Approval constitution and by-laws	8,302
Marmora & Lake, Township of	Approval By-law No. 575, use of certain highways to the Lily Creek Telephone Co., Ltd	8,330
Monck Municipal Telephone System	Increased charges	8,364
Manvers, Township of	Approval By-law No. 888, use of certain highways to South Janetville Telephone Co., Ltd	8,370

		Procedure File.
Mornington, Township of	Extension of telephone system and debenture issue therefor	8,373
Maberley Telephone Co., Ltd	Approval By-laws Nos. 3 and 4	8,394
Mara, Township of	Approval By-law No. 611, use of certain highways to Rama-Mara Telephone Co., Ltd	8,408
Millbrook Rural Telephone Co., Ltd	Approval Agreement for sale to, of certain telephone plant, etc., by Jno. R. and Ila S. Bell	8,409
Mornington, Township of	Approval By-law No. 546, debenture issue for establishment of telephone system	8,419
Mildmay, Village of	Approval By-law No. 6 (1923), granting use of highways to The South Bruce Rural Telephone Co., Ltd	8,465
Murray Brighton Telephone Co., Ltd	Approval By-law No. 49 (1923), Village of Frankford, granting use of highways to	8,498
Manvers, Township of	Approval By-law No. 963, issue of debentures for cost of establishing "The Manvers Municipal Telephone System"	8,521
Murray Brighton Telephone Co., Ltd. (D. S. Austin)	Application for approval agreement of sale to, by Bell Telephone Co. of Canada, Ltd., of certain plant and equipment in Village of Frankford and Township of Sidney	8,556
Macdonald Municipal Telephone System	Approval charges for service	8,603
Moore Municipal Telephone System	Approval charges for service	8,606
Moore Telephone System	Re-installation fee	8,673
Milton Telephone Co., Ltd	Approval By-law No. 314 of Township Trafalgar, granting use of certain highways to	8,716
Millbrook Rural Telephone Co., Ltd	Approval Agreement with The Fallis Line Telephone Co., Ltd	8,741
Millbrook Rural Telephone Co., Ltd	Approval Agreement with The North Cavan Rural Telephone Co., Ltd	8,742
Millbrook Rural Telephone Co., Ltd	Approval Agreement with The Cavan Rural Telephone Co., Ltd	8,743
Mount Albert Telephone Co., Ltd	Application for authority to invest $2,000 in the purchase of bonds	8,760
Mount Albert Telephone Co., Ltd	Issue of additional capital stock $6,360	8,815
Marmora & Lake, Township of	Establishment of Telephone System under By-law No. 579	8,817
Murray Brighton Telephone Co. *vs.* United Co. Northumberland and Durham	*See* "Austin, D. S."	
McLachlin, Harold F.; Beckwith & Montague Rural Telephone Co., Ltd., *vs*	Extension of applicants' system and use of poles of respondents	8,068
McGillivray, Township of	Approval By-law No. 3, granting use of highways to the Centralia Mount Carmel Telephone Co., Ltd	8,204
McKellar, Township of	Approval By-law No. 175, granting use of certain highways to The Spence-Monteith Telephone Co., Ltd	8,319
McKellar, Township of	Extension of time to pass by-law for establishment of Municipal Telephone System	8,344
McKenzie, A. G. (Coldstream Telephone System)	Increased charges	8,430
McLean, Matthew, *et al*	Removal of names from Petition for establishment of telephone system by Township Dungannon	8,513
McKellar, Township of	Approval By-law No. 177, providing for issue of debentures to meet cost of establishing "The McKellar Municipal Telephone System"	8,642

		Procedure File.
McDonald Meredith and Aberdeen Additional, Municipality of	Authority to pass by-law for issue of debentures for certain reconstruction, etc., of The McDonald Municipal Telephone System	8,702
McDonald Municipal Telephone System	*See* "McDonald Meredith & Aberdeen."	
McKillop, Municipality of	Authority to pass by-law for reconstruction, etc., of The McKillop Municipal Telephone System	8,803
McKillop Municipal Telephone System	Reconstruction of	8,803
North Wellington Telephone Co., Ltd	Increased charges	8,177
Norfolk County Telephone Co., Ltd	Approval amendment to sec. "U" of its By-law No. 54	8,266
O'Connor, Township of	Approval debenture, By-law No. 232, establishment of telephone system	8,347
North Norwich, Township of	Approval By-law No. 924, establishment of telephone system	8,418
Norfolk County Telephone Co., Ltd	For approval of agreement with Wm. H. Haviland, *et al.* (Windham Telephone Co.)	8,551
Norfolk & Tillsonburg Telephone Co., Ltd	Increased charges	8,663
Norfolk & Tillsonburg Telephone Co., Ltd	Re-installation fee	8,726
North Cavan Rural Telephone Co., Ltd	Approval Agreement with The Millbrook Rural Telephone Co., Ltd	8,742
North Elmsley, Township of	Approval By-law No. 493, granting use of highways to The Black Lake Telephone Co., Ltd	8,771
North Burgess, Township of	Approval By-law No. 709, granting use of highways to the Black Lake Telephone Co., Ltd	8,772
North Norwich, Township of	Approval purchase of telephone system of Burgessville Telephone Co., Ltd	8,834
Northumberland & Durham, County of; Austin, D. S., *vs*	Obstruction on highway, Prov. Co. Road, No. 38, Township Murray	8,806
Orono Telephone Co., Ltd	Increased charges	8,149
Ontario Forestry Department	Approval By-law No. 11, Township of Tudor & Cashel, granting use of highways to	8,467
Oliver, Robert, *et al*	Removal of names from Petition to Township of Stanhope for Telephone System	8,669
Orono Telephone Co., Ltd	*Vs.* Port Hope Telephone Co., Ltd.—Complaint *re* paralleling of pole leads	8,762
People's Telegraph & Telephone Co., Ltd	Reconstruction repairs, etc	8,106
Perry, Township of	Approval By-law No. 172, use of highways to Muskoka and Parry Sound Telephone Co., Ltd	8,155
Pontypool Telephone Light and Power Co., Ltd., *et al*	Price to be offered by Municipality of Manvers for certain telephone plant and equipment	8,156
People's Mutual Telephone Co., Ltd	Use of pin space on poles for Gore "G" Telephone Co., Ltd	8,199
Proudfoot, Township of (unorganized), *et al*	Use of highways to Muskoka and Parry Sound Telephone Co., Ltd	8,242
People's Telephone & Telegraph Co., Ltd	Fixing of price to be offered by Township South Algona for plant, etc., located in township	8,301
Provencher, A. J	For authority to erect poles and wires on highways in unorganized Township of South Lorrain	8,482
People's Telegraph & Telephone Co., Ltd	Increased charges	8,519
Plummer Additional & Lefroy Telephone System	Approval charges for service	8,600
Plummer Aberdeen & Galbraith Rural Telephone Association	Approval charges for services	8,601
Petawawa Rural Telephone Co., Ltd	Approval By-law, Township Alice and Fraser, granting use of certain highways to	8,638

		Procedure File.
Petawawa Rural Telephone Co., Ltd.	Approval By-law, Township Stafford, granting use of certain highways to	8,639
Petawawa Rural Telephone Co.	Approval By-law, Township Petawawa, granting use of certain highways to..	8,640
Petawawa Rural Telephone Co., Ltd.	Approval By-law No. 385, Township Pembroke, granting use of certain highways to	8,641
Petawawa, Township of	Approval By-law, granting use of certain highways and the Petawawa Rural Telephone Co., Ltd.	8,640
Pembroke, Township of	Approval By-law No. 385, granting use of certain highways and the Petawawa Rural Telephone Co., Ltd.	8,641
Port Hope Telephone Co., Ltd.; Orono Telephone Co., Ltd.; *vs.*	Complaint *re* paralleling of pole leads	8,762
Progressive Telephone Co., Ltd.	Approval By-law, No. 6 (1923), Township Sullivan, use of certain highways to..	8,832
Progressive Telephone Co., Ltd.	Approval By-law No. 10 (1923), Township Elderslie, use of certain highways to	8,833
Quinlan, P. F.	Increased charges	8,816
Queen's Line Telephone Co., Ltd.	Approval By-law No. 204, of Township Ross, use of certain highways to	8,825
Queen's Line Telephone Co., Ltd.	Approval By-law No. 330 of Township Westmeath, use of certain highways to	8,851
Ramsay, Township of	Approval By-law No. 780, use of certain highways to The Lanark & Ramsay Telephone Co., Ltd.	8,109
Radcliffe, Township of	Approval By-law No. 113, establishment of telephone system	8,127
Rainy River International Telephone Co., Ltd.	*Vs.* Fort Frances restoration of telephone connection	8,168
Rainy River International Telephone Co., Ltd.	Authority to pass by-law for extension, etc., of telephone system $5,500	8,348
Rainy River International Telephone Co., Ltd.	Increased charges for telephone service	8,348A
Rama, Township of	Approval By-law No. 407, use of certain highways to the Rama-Mara Telephone Co., Ltd.	8,407
Rama-Mara Telephone Co., Ltd.	Approval Township Rama By-law No. 407, granting use of certain highways to	8,407
Rama-Mara Telephone Co., Ltd.	Approval Township Mara By-law No. 611, granting use of certain highways to..	8,408
Ryde, Township of	Application by the Commissioners for Telephone System of: for authority to parallel pole leads of Doe Lake Telephone Co., Ltd.	8,539
Roxborough, Township of	Application for extension of period to pass debenture by-law for establishment of Roxborough Municipal Telephone System	8,569
Rollins, Chas. S., *et al.*	Approval Agreement for sale to, of certain telephone plant and equipment of Jno. R. Hardinge, *et al.*	8,596
Ross, Township of	Approval By-law No. 204, use of certain highways to Queen's Line Telephone Co., Ltd.	8,825
Roche, Michael, *et al.*	Approval Agreement for sale of certain telephone plant, etc., to Commissioners for Municipal Telephone System of Brudenell & Lynedoch	8,867
Springbank Telephone Co., Ltd., *et al.*	*Vs.* Wroxeter Rural Telephone Co., Ltd., terms, etc., for interchange of service	8,103
Spence-Monteith Telephone Co., Ltd.	Use of highways in unorganized Townships of Spence and Monteith	8,163
Spence (unorganized), Township of	Use of highways by Spence-Monteith Telephone Co., Ltd.	8,163
South Leeds & Pittsburg Rural Telephone Co., Ltd.	Approval By-law No. 63. Penalty for non-payment of any call or instalment *re* shares of stock of company	8,188

		Procedure File.
South Malahide Telephone Co., Ltd.	Increased charges	8,189
Stephen, Township of	Approval By-law No. 302, use of highways to Centralia—Mount Carmel Telephone Co., Ltd	8,203
South Malahide Telephone Co., Ltd.	Approval purchase of local system of Bell Telephone Co. of Canada, Ltd., in Town of Aylmer	8,214
St. Marys Medina and Kirkton Telephone Co., Ltd.	Re-installation charge	8,216
South Malahide Telephone Co., Ltd.	*Vs.* Houghton & Bayham Telephone Co., Ltd.—Terms for interchange of service and operation of switchboard at Port Burwell	8,217
Stevens, E.J.	Removal of name from Petition for establishment of telephone system by Municipality of Belmont and Methuen	8,258
Strong, Township of	Approval By-law No. 441, establishment of telephone system	8,262
South Walsingham Telephone Co., Ltd.	*Vs.* Anger Telephone System and the South Norfolk Telephone Co., Ltd.—Terms for interchange of service and pin space	8,272
South Norfolk Telephone Co., Ltd., *et al*, South Walsingham Telephone Co., Ltd., *vs.*	Interchange of service and pin space	8,272
South Janetville Telephone Co.	*See* "Janetville Telephone Association, *et al.*"	8,156
Snell, Wm. Robert, Meredith C. Morgan	Telephone Service	8,275
South Algona, Township of	Approval By-law No. 88, establishment of telephone system	8,300
South Algona, Township of	Fixing price to be offered People's Telephone & Telegraph Co., for plant located in Township of South Algona	8,301
Stanhope, Township of	Approval Debenture By-law No. 374, establishment of telephone system	8,318
Spence-Monteith Telephone Co., Ltd.	Approval By-law No. 175, Township of McKellar, granting use of certain highways to	8,319
Spence-Monteith Telephone Co., Ltd.	Approval By-law No. 120, Township Christie, granting use of certain highways to	8,320
Shuniah Municipal Telephone System	Increased charges	8,363
St. Vincent, Township of	Approval By-law No. 8 (1923), extensions to telephone system and issue of debenture therefor	8,365
South Janetville Telephone Co., Ltd.	Approval Township Manvers By-law No. 888, granting use of certain highways to	8,370
Sandwich West Co-operative Telephone Co., Ltd.	Increased charges	8,406
St. Vincent, Municipality of	Increased charges	8,431
South Line Brant Rural Telephone Co., Ltd.	Approval Township Brant, By-law No. 3 (1921), granting use of highways to	8,438
South Bruce Rural Telephone Co., Ltd.	Approval Village of Mildmay, By-law No. 6 (1923), granting use of highways to	8,465
South Bruce Rural Telephone Co., Ltd.	Approval Village of Teeswater, By-law No. 6 (1923), granting use of highways to	8,466
Sisson, Clair H.	Removal of name from Petition to the Council of the Municipality of Dysart	8,483
South Bruce Rural Telephone Co., Ltd.	Approval agreement for sale to, by Bell Telephone Co., of Canada, Ltd., of certain plant and equipment located in Villages of Mildmay and Teeswater, and Townships of Carrick and Culross	8,522
Stafford, Township of	Approval By-law, granting use of certain highways to The Petawawa Rural Telephone Co., Ltd	8,639
Stanhope, Township of	Removal names of Robert Oliver *et al.*, from Petition for telephone system	8,669

		Procedure File.
Swale, Cecil, *et al.* (trading as "Cecil Swale Telephone Association)	Approval By-law No. 628, Township Albemarle, use of highways to	8,604
Swale, Cecil, *et al.* (trading as "Cecil Swale Telephone Association)	Approval By-law No. 282, Amabel, use of certain highways to	8,605
South Algona, Township of	Approval By-law No. 93, granting use of certain highways to the Cormac & Eganville Telephone Co., Ltd.	8,770
Sullivan, Township of	Approval By-law No. 6 (1923), use of certain highways to The Progressive Telephone Co., Ltd	8,832
Tenth Concession Alice & Fraser Telephone Co., Ltd	Approval By-law No. 4 (1922), of Townships Alice and Fraser, granting use of highways to	8,288
Teeswater, Village of	Approval By-law No. 6 (1923), granting use of highways to The South Bruce Rural Telephone Co., Ltd	8,466
Tudor and Cashel, Township of	Approval By-law No. 11, granting use of highways to The Ontario Forestry Department	8,467
Tarbutt Rural Telephone System	Approval charges for service	8,605
Tay, Township of	Approval of By-law No. 835, for establishment of "The West Tay Municipal Telephone System	8,661
Trafalgar, Township of	Approval By-law No. 314, use of certain highways to The Milton Telephone Co., Ltd	8,716
Tay, Municipality of Township of	Approval of purchase from Bell Telephone Company of Canada, Ltd., of certain telephone plant and equipment	8,718
United Telephone Co., Ltd	Fixing of price to be offered by Township London for telephone plant and equipment of	8,303
Uhthoff Telephone Co., Ltd	Increased charges	8,399
United Telephone Co., Ltd	Application by the Byron Telephone Co., for authority to parallel pole leads of, in Township Lobo	8,566
Uhthoff Telephone Co., Ltd	Approval by-laws for control and management of applicants' undertaking	8,796
Verona & Frontenac Telephone Co., Ltd.; Barker, Edward, *vs.*	Interchange of service	8,372
Wellesley, Township of	Approval By-law No. 836, reconstruction of telephone system	8,067
Wroxeter Rural Telephone Co., Ltd	Fordwich Rural Telephone, *et al.*, terms, etc., for interchange of service	8,103
Wilmot, Township of	Approval By-law No. 599, establishment of telephone system	8,205
Woodbridge & Vaughan Telephone Co., Ltd.	Sale to, of System, etc., of King Telephone Co., Ltd	8,232
Wood, Geo. E	Approval By-law No. 66, Township of Blue, use of highways to	8,267
Woodbridge & Vaughan Telephone Co., Ltd.	Re-installation charge	8,282
Woodbridge & Vaughan Telephone Co., Ltd.	Charges for service to subscribers formerly served by King Telephone Co., Ltd.	8,283
Wroxeter Rural Telephone Co., Ltd	Approval agreement for sale to, by the Bell Telephone Co., Ltd., of plant, etc., located in Village of Gorrie	8,299
West Garafraxa Telephone Co-operative Association, Ltd	Approval agreement for sale of certain plant and equipment by The Bell Telephone Co. of Canada, Ltd., to.	8,499
Windham Telephone Co. (Wm. H. Haviland, *et al.*)	Application Norfolk County Telephone Co., for approval agreement with	8,551
Wellesley Municipal Telephone System	Increased charges	8,593

		Procedure File.
Watt Municipal Telephone System	Extension time to pass By-law for issue of debentures to meet cost of establishment of	8,694
Watt Municipal Telephone System	Increased charges	8,708
Westmeath, Township of	Approval By-law No. 330, use of certain highways to the Queen's Line Telephone Co., Ltd	8,851
Yelverton Telephone Co., *et al*	Price to be offered by Municipality of Manvers for certain telephone plant and equipment	8,156

LIST OF BELL TELEPHONE AGREEMENTS APPROVED BY THE BOARD UNDER SECTION 82 OF "THE ONTARIO TELEPHONE ACT, 1918."

	Procedure File.
Alexander, Jas. (*See* Bowman Telephone System)	.....
Austin, D. S. (Murray Brighton Telephone System)	8,538
Arden & Long Lake Telephone System (Interchange of service)	8,862
Bradden Telephone Co., Ltd.	8,077
Belmont Municipal Telephone System (Township Belmont)	8,140
Bell, Jno. R., and Mrs. Ila S. (Kawartha Telephone System)	8,208
Bowman Telephone System (Jas. Alexander)	8,252
Brighton Municipal Telephone System	8,392
Balmoral Telephone System (*See* "Gee, Myron A.").	
Beeton Telephone Co., Ltd.	8,616
Black Lake Telephone Co., Ltd. (Service Station)	8,823
Bruce Municipal Telephone System (Exchange and Toll Line)	8,837
Bonfield Telephone Co., Ltd. (Exchange and Toll Line Agreements)	8,860
Barrie-Angus Telephone Co., Ltd. (Service Station)	8,869
Ben Allen Telephone Co., Ltd. (Service Station)	8,878
Canadian Explosives, Limited	8,124
Chinguacousy Municipal Telephone System	8,326
Cecil Swale Telephone System	8,477
Caldwell, W. R. (Service Station)	8,737
Dunnville Consolidated Telephone Co., Ltd.	8,278
Davis, Joseph, and Leslie Davis (*See* "Rankin Telephone Co.").	
Elgin-Chaffeys Locks Telephone Co	8,645
Fordwich Rural Telephone Co., Ltd.	8,072
Fifth Line Telephone Co., Ltd. (Service Station)	8,879
Gore Mutual Telephone Co., Ltd.	8,054
Gillies Telephone System	8,063
Gee, Myron A.	8,578
Hungerford Municipal Telephone System (Service Station)	8,787
Huntsville & Lake of Bays Telephone Co., Ltd.	8,789
Kawartha Telephone System (*See* "Jno. R. and Mrs. S. Bell").	
Korah Base Line Telephone Co., Ltd. (Service Station)	8,798
Lanark & Ramsay Telephone Co., Ltd.	8,529
Lake of Bays and Haliburton Telephone Co., Ltd.	8,654
Lambeth Telephone Co., Ltd. (Service Station)	8,677
Lily Creek Telephone Co., Ltd. (Service Station)	8,752
Lyndhurst Rural Telephone Co., Ltd.	8,804
Leith & Annan Telephone Co., Ltd. (Service Station)	8,884
Murray Brighton Telephone System (*See* "Austin, D. S.").	
Maberly Telephone Co., Ltd.	8,582
Malahide & Bayham Telephone Association, Ltd.	8,625
Monck Municipal Telephone System	8,632
Muskoka, Victoria & Haliburton Telephone Co., Ltd.	8,634
Millbrook Rural Telephone Co., Ltd.	8,753
Moore, J. B., *et al.* (*See* "Nipissing Private Telephone Line.")	
Manilla Union Telephone Co., Ltd.	8,757
Mutual Telephone Co., Ltd. (Service Station)	8,809
Maple Leaf Telephone Co., Ltd.	8,880
North Wellington Telephone Co., Ltd.	8,200
Norfolk County Telephone Co., Ltd.	8,247
Northcote Farmers' Telephone Co., Ltd.	8,531
Nipissing Private Telephone Line	8,754
North Norwich, Township of—Connecting Agreement Exchange and Toll Line at Burgessville, and Service Station at Norwich and Woodstock	8,782
Oakwood Telephone Co., Ltd.	8,649
O'Connell Rathburn Telephone Co., Ltd. (Service Station)	8,788
Otonabee Municipal Telephone System (Interchange of service)	8,824
Osprey Municipal Telephone System (Interchange of service)	8,839
Plummer, Aberdeen & Galbraith Rural Telephone Association	8,090
People's Mutual Telephone Co., Ltd.	8,279
Petawawa Rural Telephone Co., Ltd. (Service Station Agreement)	8,665
Pine Grove Telephone Association, Ltd. (Service Station Agreement)	8,808
Pleasant View Telephone Co., Ltd. (Service Station Agreement)	8,881
Roman Catholic Episcopal Corporation of the Diocese of Kingston	8,478
Rankin Telephone Co. (Joseph Davies and Leslie Davis)	8,667
Rama-Mara Telephone Co., Ltd. (Service Station Agreement)	8,707
South Colchester Telephone Co., Ltd.	8,053

	Procedure File
Springbank Telephone Co., Ltd.	8,074
Sebright Telephone Co., Ltd.	8,360
South Bruce Rural Telephone Co., Ltd.	8,514
South Crosby Rural Telephone Co., Ltd.	8,646
Strong Municipal Telephone System	8,699
Superior Telephone Club (Service Station)	8,805
Spey River Telephone Co., Ltd.	8,810
Sunny Valley Telephone Co., Ltd.	8,811
South Brant Rural Telephone Co., Ltd. (Service Station)	8,861
Sydenham Union Telephone Co., Ltd. (Service Station)	8,882
Tay Municipal Telephone System	8,089
Tuckersmith Municipal Telephone System	8,626
Tenth Concession Alice & Fraser Telephone Co., Ltd. (Service Station)	8,710
Tay, Township of (Service Station)	8,714
West Lake Telephone Co., Ltd.	8,142
West Garafraxa Co-operative Association, Ltd.	8,508
Woodford Telephone Co., Ltd. (Service Station)	8,883

MUNICIPAL TELEPHONE UNDERTAKINGS OPERATING UNDER PART I OF "THE ONTARIO TELEPHONE ACT, 1918."

Report, 1923	Alberton	Cochrane	Caledon	Fort William	Hilliard	Kenora	Port Arthur	Rainy River
Year established	1922	1920	1922	1902	1921	1902	1902	1920
Number of telephones	63	297	318	3,690	53	958	3,197	103
Number of circuits	5	287	34	4,050	4	420	3,241	40
Miles of pole lead	59	3½	145	9.17	21	13	40.4	40
Miles of wire	....	....	320	11,291	42	526	3,860	....
(a) on poles	118	201	320	11,224	42	522	3,841	60
(b) underground	....	Submarine 7	....	67	....	Submarine 4	19	....
RATES FOR SERVICE PER ANNUM:	$ c. $ c.	$ c.	$ c.	$ c.	$ c.	$ c.	Wall $ c. Desk $ c.	$ c.
(a) Individual line, business	.....	40 00	20 00	48 00	.....	35 00	48 00 50 00	40 00
(b) Individual line, residence	.....	25 00	20 00	24 00	.....	25 00	24 00 26 00	25 00
(c) Party line, business	.....	32 00	20 00	40 00	16 00	.....	40 00 42 00	.....
(d) Party line, residence	12 00 16 00*	20 00	20 00	18 00	16 00	15 00	18 00 20 00	25 00
CAPITAL ACCOUNT:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Total Assets	7,905 74	45,097 58	32,000 00	307,165 16	6,398 37	67,490 50	310,935 59	11,402 36
Total Liabilities	7,436 00	42,328 25	28,811 98	321,500 00	4,567 15	48,726 89	274,103 51	10,103 90
Sinking Fund	.....	†8,369 48	†3,188 02	242,004 42	.....	5,151 41	91,632 24	.....
REVENUE ACCOUNT:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Gross Income	873 20	10,259 24	8,974 20	109,993 47	2,162 21	21,165 13	86,204 75	3,563 40
Expenses	867 30	9,731 95	8,376 87	55,677 76	2,266 00	13,980 43	62,582 44	3,087 44
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Gross gain from Operation	5 90	.....	597 33	54,315 71	.....	7,184 70	23,622 31	475 96
Interest and Sinking Fund	‡996 64	.....	.....	31,942 38	‡435 87	3,214 21	26,855 97	⁂1,281 12
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Net gain for year	.....	.....	597 33	22,373 33	.....	#3,970 49	.....	.....
Net deficit for year	‡990 74	.....	.....	.....	‡539 66	.....	3,233 66	805 16

* Township of McIrvin. ‡ To be met by general levy on all ratepayers.. †Debenture instalments paid.

$1,710.58 in excess of sinking fund amount, 1923, was written into depreciation reserve account, which, when taken into account, leaves a net gain of $2,259.91.

⁂ Includes principal and interest instalment, $854.26.

MUNICIPAL TELEPHONE UNDERTAKINGS OPERATING UNDER PART I OF THE ONTARIO TELEPHONE ACT.

Municipality	Secretary or Municipal Clerk	P.O. Address
Township of Alberton	F. E. Stewart	Crozier
Town of Cochrane	R. C. Mortson	Cochrane
City of Fort William	Alex. McNaughton	Fort William
Township of Hilliard	G. Harrison	Box 36, Thornloe
Town of Kenora	F. J. Hooper	Kenora
City of Port Arthur	F. D. Jackson	Port Arthur
Town of Rainy River	E. E. Jess	Rainy River
Township of Caledon	W. J. Warnock	Caledon

SYSTEMS OPERATING AND IN COURSE OF ORGANIZATION UNDER PART II OF "THE ONTARIO TELEPHONE ACT."

Municipality.	Secretary or Municipal Clerk	P.O. Address
Amherst Island Tp	D. H. Filson	Stella.
Assiginac Tp	Thos. Norquay	Manitowaning.
Atwood Tp	W. H. Williscraft	Rainy River.
Belmont Tp	H. W. Brown	Havelock, R.R. 1.
Blyth Tp	Jas. D. Moody	Blyth.
Brooke Tp	A. R. Chapman	Inwood.
Brighton Tp	Fred. O. Wade	Brighton, R.R. 1.
Bruce Tp	N. T. Jones	Kincardine.
Brudenell and Lyndock Tps	Simon Finnerty	Killaloe, R.R. 1.
Brussels (Village) Morris and Grey Tps.	A. H. Macdonald	Brussels.
Carlow Tp	J. W. Hudson	Boulter.
Chapple Tp	Thos. Hood	Barwick.
Chinguacousy Tp	W. D. Bowles	Mono Road.
Chisholm Tp	R. W. Butler	Alderdale.
Christie Tp	Wells Thompson	Orrville.
Colborne Tp	E. V. Lawson	Goderich, R.R. 3.
Colchester North Tp	T. W. Weyburn	Essex.
Coldwater (Village)	H. Elliott	Coldwater.
Cramahe Tp	F. A. Black	Vernonville.
Dawn Tp	J. J. Harrison	Dresden, R.R. 4.
Douro Tp	Maurice Condon	Lakefield, R.R. 4.
Dover Tp	John Grant	Eberts.
Dryden (Town)	J. E. Gibson	Dryden.
Dummer Tp	C. J. Darling	Warsaw, R.R. 2.
Dungannon Tp	Thos. Turriff	Detlor.
Dysart Tp	Arthur Batchelor	Haliburton.
Emily Tp	Moses Ruth	Omemee, R.R. 1.
Emo Tp	E. T. McComb	Emo.
Ennismore Tp	J. J. O'Connor	Ennismore, R.R. 1.
Erin Tp	Richard Bryan	Hillsburg, R.R.1.
Euphrasia Tp	T. I. Fawcett	Markdale, R.R. 2.
Euphrasia Tp. (Beaver Valley)	C. Running	Camperdown.
Faraday Tp	F. A. Towle	Bancroft.
Flos Tp	C. S. Burton	Elmvale.
Fort Frances (Town)	H. E. Marr	Fort Frances.
Glenelg Tp	Thos. J. Brodie	Holland Centre, R.R. 2.
Goderich Tp	Chas. E. Wise	Clinton, R.R. 3.
Gore Bay (Town)	F. W. Major	Gore Bay.
Gosfield, North Tp	S. H. Wyatt	Cottam.
Hagarty and Richards Tps	M. J. Grace	Killaloe.
Haldimand Tp	F. W. Hare	Cobourg, R.R. 5.
Harvey Tp	John P. Smith	Peterborough, R.R. 1.
Hay Tp	Andrew F. Hess	Zurich.
Howick Tp	J. H. Rogers	Fordwich.
Howland Tp	J. H. Skippen	Sheguiandah.
Humphrey Tp	A. A. Young	Rosseau.
Hungerford Tp	W. Courneya	Bogart.
Huron and Kinloss Tps	Angus Martyn	Ripley.
Jocelyn Tp	H. E. Crowder	Carterton.
Johnson Tp	Miss T. W. Bretz	Desbarats.
Kerns Tp	E. Sackrider	New Liskeard, R.R. 1.
Laird Tp	Newman Johnson	Laird.
La Vallee Tp	S. B. Mattoon	Burriss.
London Tp	J. A. Hughes	Ilderton.
MacDonald Tp	Edward Hutchison	Echo Bay.
Magnetawan (Village)	H. Q. Snuggs	Magnetawan.
Maidstone Tp	A. Mousseau	Woodslee.
Manvers Tp	W. A. Jakeman	Bethany.
Marmora Tp	Chas. Jones	Marmora.
McKellar Tp	Wm. M. Taylor	McKellar.
McKillop Tp	J. M. Govenlock	Seaforth, R.R. 1.
Medonte Tp	T. D. Robinson	Moonstone.
Mersea Tp	A. E. Newman	Leamington.

SYSTEMS OPERATING AND IN COURSE OF ORGANIZATION UNDER PART II OF "THE ONTARIO TELEPHONE ACT,"—*Continued.*

Municipality.	Secretary or Municipal Clerk	P.O. Address
Minden Tp.	R. H. Baker	Minden.
Monck Tp.	Thos. Mears	Beaumaris.
Monck Tp. (North Monck)	Albert J. Golz	Bardsville.
Monteagle and Herschel Tps.	T. B. Robinson	Greenview.
Moore Tp.	D. M. Johnston	Courtright.
Morley Tp.	Guy G. Gamsby	Stratton.
Mornington Tp.	W. T. Shearer	Poole.
Nipissing Tp.	Thos. Rowlandson	Nipissing.
North Algona Tp.	Wm. J. Hugli	Golden Lake.
North Easthope Tp.	Margaret McGillawee	Stratford, R.R. 1.
North Norwich Tp.	E. Burpee Palmer	Norwich.
O'Connor Tp.	D. R. White	Kakabeka Falls.
Oliver Tp.	H. Gorton	Murillo.
Osprey Tp.	Thos. W. Conron	Feversham.
Otonabee Tp.	F. A. Eason	Keene.
Paipoonge Tp.	A. J. McGugan	Fort William, R.R. 1.
Pelee Tp.	Hubert Taylor	Scudder.
Percy Tp.	F. H. Meneilley	Warkworth.
Plummer Additional Tp.	Thos. Humphries	Bruce Mines.
Radcliffe Tp.	C. B. Denison	Combermere.
Raglan Tp.	A. E. Lidkie	Palmer Rapids.
Ratter and Dunnett Tps.	R. H. Wilson	Warren.
Rochester Tp.	F. A. Trepanier	St. Joachim.
Roxborough Tp.	Murdock McLeod	Moose Creek.
Ryde Tp.	Robt. McKay	Gravenhurst.
Sandwich South Tp.	Jas. McAuliffe	Maidstone.
Sherwood, Jones and Burns Tps.	Henry J. Chapeski	Barry's Bay.
Shuniah Tp.	E. E. Thomas	Intola.
South Algona Tp.	John Nelan	Ruby.
Stanhope Tp.	Angus Coulter	Boskung.
St. Joseph Tp. (Richard's Landing Mun. Telephone Club)	S. Shipman	Richard's Landing.
St. Vincent Tp.	Geo. G. Alberry	Meaford.
Strong Tp.	A. M. Church	Sundridge.
Tarbutt and Tarbutt, Additional Tps.	W. E. Hollingsworth	MacLennan.
Tay Tp.	G. W. Allison	Victoria Harbor.
Tay Tp. (North River)	John Wm. Fell	Coldwater.
Tay Tp. (West Tay.)	T. W. Brown	Victoria Harbor.
Thessalon Tp.	Theo. E. Clinton	Thessalon.
Tilbury East Tp.	Miss M. A. Farquharson	Merlin, R.R. 1.
Tilbury West Tp.	J. W. Brown	Comber.
Tiny Tp.	Jos. E. Brunelle	Lafontaine.
Tuckersmith Tp. (Bayfield)	H. W. Erwin	Bayfield.
Tuckersmith Tp.	J. B. Mustard	Brucefield.
Tyendinaga Tp.	Jno. J. Farrell	Lonsdale.
Vespra Tp.	A. B. Coutts	Barrie.
Waterloo Tp.	Anson Groh	Preston, R.R. 2.
Watt Tp.	Mark Kay	Ufford.
Wellesley Tp.	J. C. McKay	Wallenstein.
Widdifield Tp.	Jno. A. Carmichael	North Bay.
Wilmot Tp.	A. R. G. Smith	New Hamburg.
Worthington Tp.	Edmund Kearney	Sleeman.

STATISTICS

TELEPHONE SYSTEMS

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
121	Aberdeen Plummer Centre Line Telephone Association, Ltd	Wm. McDonald	Plummer	1914	42	21	42	3,986	259 45	259 45
435	Acorn Rural Telephone Association, Ltd	R. W. Ross	Cobden	1912	22	6	6	1,500	220 41	220 41
542	Addington Telephone Company, Ltd	J. A. Milsop	Moscow	1910	37	10	20	2,500	186 30	114 59
305	Addison Rural Telephone Co., Ltd	Morris Westlake	Tin Cap	1908	232	48	105	11,300	3,079 80	2,817 77
191	Adelaide Telephone Company, Ltd	M. C. Morgan	Kerwood	1909	249	46	112	15,000	2,406 04	1,654 78
79	Admaston Rural Telephone Association, Ltd	C. L. McCrady	Admaston Station	1910	34	10	20	1,445	396 80	334 03
1	Ahmic Telephone Co., Ltd	W. J. Sneath	Ahmic Harbor	1907	.....	22½	22½	700	Did not operate 1923	
4	Alberton Municipal Telephone System	F. E. Stewart	Crozier	1922	63	37	118	8,179	873 20	1,308 50
308	Aldborough Farmers Telephone Association Ltd	D. Mistele	Rodney	1911	216	74	119	5,340	2,122 95	2,027 33
132	Alexander Telephone System	Jas. Alexander	Elmwood	1909	163	37	87	7,100	2,000 00	1,597 00
365	Algoma Central & Hudson Bay Railway.	Alex. Taylor	Traders Bk. Chambers, Toronto	1899	68	335	415	124,952	4,124 38	19,462 61
366	Algoma Eastern Railway			1900	38	86	172	29,593	1,537 70	10,954 59
577	Algonquin Park Telephone System	.....	.....	.....	.....	.....	.....	.....	.....	.....
509	Alice Telephone Association	John W. Hamilton	R.R. 5, Pembroke	1914	42	18	36	2,800	205 00	200 00
261	Allenford Rural Telephone Co., Ltd	G. C. Wain	Allenford	1912	190	65	130	15,129	1,969 00	1,927 00
319	Alnwick Rural Telephone Co., Ltd	Delbert Varcoe	R.R. 3, Roseneath	1909	140	46	60	5,000	1,912 00	1,698 00
367	Amabel Telephone Association	Geo. Eldridge	Hepworth	1911	27	10½	21	968	240 75	123 50
619	Amherst Island Mun. Tel. System	D. H. Filson	Stella	1921	22	4½	9	2,329	668 23	665 64
411	Ansonville Telephone Co., Ltd	W. J. Grunnett	Ansonville	1923	In course of construction.					
2	Apsley Telephone Co., Ltd	Russell Hales	Apsley	1909	41	45	45	3,500	339 95	318 35
130	Arden & Parham Telephone System	Edw. Barker	Arden	1910	140	75	130	12,000	2,695 00	2,220 00
162	Ardoch Rural Telephone System	J. B. Myers	Ardoch	1916	53	53	53	2,200	357 00	230 00
368	Ardtrea Telephone Co., Ltd	Fred Holmes	R.R. 3, Orillia	1916	44	21½	65	3,655	511 50	765 15
629	Armstrong Private Telephone System	Jas. Armstrong	Millbridge	1920	1	1¼	2½	250	Private line no revenue	
492	Arran No. 1 Telephone Association	W. H. Davis	R.R. 2, Tara	1912	79	20	68	3,700	400 00	446 00
80	Ashgrove Rural Telephone Co., Ltd	Walter Thompson	R.R. 2, Georgetown	1908	13	3	3	500	117 80	117 80
644	Assiginac Municipal Telephone System	Thos. Norquay	Manitowaning	1920	45	28	28	1,921	1,019 32	960 09
646	Atherly Telephone Association, Ltd	J. W. Symington	Atherley	1918	6	2½	5	900	42 00	42 00
338	Atwood Municipal Telephone System	W. H. Williscraft	Rainy River	1921	33	9	28½	3,139	708 91	760 95
141	Augsburg Telephone Association Ltd	Fred. F. Griese	R.R. 5, Eganville	1919	25	14	28	2,500	15 70	15 60
3	Ayr Rural Telephone Co., Ltd	James G. Fair	Ayr	1909	189	70	194	9,994	2,332 02	1,312 15
465	Ayton Telephone Co., Ltd	Thos. J. Burke	R.R. 2, Ayton	1914	22	8	16	920	216 83	199 24

369	Back Line Telephone Co., Ltd.	W. E. Reid	Shelburne, R.R. 2	1911	24	8½	17	1,425	168 00	84 38	
370	Balaclava Telephone Co	Jas. McKnight	Balaclava	1912	50	18	45	2,450	362 50	362 50	
371	Balderson Telephone Association	Duncan McLaren	Balderson	1912	142	35	70	7,500	882 15	826 69	
250	Balmoral Telephone System	Myron A. Gee	Wheatley	1923	118	1	66	10,000	1,714 35	1,443 17	
372	Balsam Hill Telephone Co., Ltd.	Wellington Hodgins	R.R. 2, Renfrew	1917	28	14	28	1,400	300 09	286 45	
373	Barrie Angus Telephone Co., Ltd.	Wm. Pearce	R.R. 1, Angus	1915	43	20	40	2,500	600 00	156 00	
504	Barrie Island Telephone Co., Ltd.	A. F. Lane	Barrie Island	1908	31	24	24	700	244 79	237 01	
601	Bayfield Municipal Telephone System	H. W. Erwin	Bayfield	1911	20	2	4	1,795	258 11	257 82	
652	B. D. & H. Telephone Line	H. W. Huff	R.R. 1, Yarker	1913	4	3	6	550	16 00	16 00	
129	Beatty Telephone System	Dr. A. C. Beatty	Garden Hill	1895	192	61	102	10,400	2,784 00	1,800 00	
279	Beaver Mills Telephone System	Paul Summerfeldt	Cannington	1907	2	1¼	2½	125			
374	Beaver Telephone Co				Amalgamated with Oakwood Tel. Co., Ltd.						
358	Beaver Valley Municipal Telephone System	Claude Running	Camperdown	1913	416	249	731	41,000	8,441 86	7,581 90	
525	Beckwith & Montague Rural Tel. Co., Ltd.	Robt. J. Sample	R.R. 1, Perth	1915	63	32	70	5,684	602 62	564 79	
133	Beeton Telephone Co., Ltd	N. P. McDonald	Beeton	1911	790	268	491	62,019	15,179 05	11,415 35	
579	Bellrock and Shimo Telephone Co., Ltd.	Jas. Campbell	R.R. 1, Verona	1916	27	18	36	1,700	135 00	134 47	
523	Belmont Municipal Telephone System	H.W. Brown	R.R. 1, Havelock	1922	101	33	180	8,500	959 73	856 97	
83	Belmont Telephone Co-op. Assn., Ltd.	A. W. Venning	Belmont	1905	380	82	386	9,000	5,370 85	4,733 25	
84	Ben Allen Telephone Co., Ltd.	W. J. Cavell	R.R. 7, OwenSound	1910	9	4½	9	540	85 00	79 83	
375	Bethal Rural Telephone Association	F. Nixon	Dundalk	1909	21	7½	15	650	210 00	140 00	
135	Bethesda Mutual Telephone Co	A. H. Brent	Bowmanville	1908	12	4	15	720	117 44	83 50	
5	Bethesda Stouffville Telephone Co., Ltd.	David W. Heise	Gormley	1904	1,088	214	1,139	92,116	20,868 92	18,278 52	
275	Bexley Telephone Co., Ltd.	J. E. McKague	Bexley	1914	16	18	36	760	89 75	66 70	
376	Billings Mutual Telephone Co	Earl Graham	Kagawong	1912	47	23	23	1,571	37 00	34 76	
289	Birch Lake Telephone Co., Ltd.	S. W. Scott	R.R. 2, Webbwood	1920	12	9	18	1,792	64 12	64 12	
364	Black Lake Telephone Co., Ltd.	R. T. Noonan	Perth	1923	In course of organization.						
572	Blackwater Telephone Line	E. G. Lytle	Oakwood	....	15	18	20	1,248	Private line no revenue		
560	Blair Telephone System	Peter Blair	Rosemont	1915	51	26	26	1,800	255 00	50 00	
265	Blanchard Telephone System	Dr. E. Blanchard	Cannington	1910	24	24	25	700	120 00	50 00	
377	Blind Line Telephone Co., Ltd.	Robt. I. Jolley	R.R. 4, Woodford	1911	10	7	14	920	152 73	96 74	
291	Blyth Municipal Telephone System	Jas. D. Moody	Blyth	1911	587	177½	651	83,297	8,614 95	7,514 95	
146	Boat Lake Telephone Co., Ltd.	Jas. Patterson	R.R. 2, Wiarton	1918	13	3	6	691	98 26	98 26	
467	Bobcaygeon Rural Telephone Co., Ltd.	Geo. W. Taylor	Bobcaygeon	1914	104	43½	87	3,363	1,380 07	703 83	
175	Bognor Telephone Co., Ltd.	J. M. Thomson	Bognor	1909	11	1½	3	425	236 00	227 70	
7	Bolton Telephone Co., Ltd.	Robert Smith	Bolton	1908	775	190	900	52,279	11,945 78	10,011 68	
85	Bond's Corners Telephone Co., Ltd.	Alex. Amos	R.R. 5, Woodstock	1909	13	3	6	490	95 50	111 53	
665	Bonfield Telephone Co., Ltd.	J. G. O'Connor	Bonfield	1920	26	9	18	1,299	108 00	84 90	
116	Border Lumber Co's Telephone Line	R. S. Holmes	Rainy Lake	1922	1	2	4	209	Private system no revenue		
378	Bousfield Telephone Line	G. E. Bousfield	Milton	1909	4	Leased from B.T.		125	32 00	32 00	
132	Bowman Telephone System	E. Bowman	Elmwood	1909	Sold to Jas. Alexander *See* Alexander Tel. System.						
215	Bracebridge & Muskoka Lakes Tel. Co., Ltd.	Peter Hutchison	Bracebridge	1907	71	45	208	15,048	3,698 03	3,230 77	
163	Bracebridge & Northwood Tel. Co., Ltd.	Robt. Meeks	Bracebridge	1922	10	5	10	1,250	57 75	57 50	
182	Bradden Telephone Co., Ltd.				*See* McCreary Telephone Co., Ltd.						
119	Brant Telephone Co., Ltd.	Jas. E. Metcalfe	Hanover	1920	14	5	10	650	112 25	98 00	

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
164	Brighton Municipal Telephone System	Fred. O. Wade	R.R. 1, Brighton	1913	453	146	632	38,439	10,568 91	10,285 93
677	Brockville Road Rural Tel. Co., Ltd.	Peter M. Hunter	R.R. 4, Smith's Falls	1920	18	7	14	1,260	90 00	132 02
276	Bromley Line Telephone Assn., Ltd	Jean M. Forrest	Douglas	1911	84	25		4,050	425 00	411 00
334	Brooke Municipal Telephone System	A. R. Chapman	Inwood	1911	1,010	214	871	93,977	16,956 02	18,169 38
217	Brougham & Grattan Telephone Co., Ltd.	H. M. Legris	Dacre	1907	11	18	18	2,100	215 85	93 50
363	Bruce Municipal Telephone System	N. T. Jones	Box 475, Kincardine	1912	1,441	399	1,263	137,896	26,437 65	19,964 27
131	Brudenell Telephone Co., Ltd	Jas. H. Carty	Brudenell	1922	4	9	18	1,000	36 50	72 00
437	Brudenell & Lyndock Municipal Tel. System	Simon Finnerty	R.R. 1, Killaloe	1923	In course of organization.					
205	Brussels, Morris & Grey Mun. Tel. System	A. H. Macdonald	Brussels	1909	1,029	264	792	75,000	13,123 73	11,414 19
8	Burgessville Telephone Co., Ltd	Henry Sneath	Woodstock	1905	Sold to the Municipality of the Tp. of North Norwich.					
9	Burnt River Telephone Co., Ltd	Wm. Jas. Hulbert	Burnt River	1909	120	60	220	7,000	1,796 99	1,493 01
218	Byron Telephone Co., Ltd	J. H. Matthews	Delaware	1906	750	228	1,000	40,000	15,557 51	12,932 20
468	Calabogie & Renfrew Telephone Association	W. P. J. Derham	Renfrew	1911	58	24	80	4,380	1,515 69	1,139 00
156	Caledon Municipal Telephone System	W. J. Warnock	Caledon	1919	318	145	320	32,000	8,549 86	8,426 23
238	Cambray Telephone Co., Ltd	Angus Gillies	R.R. 4, Woodville	1908	289	85	160	10,331	1,567 47	2,573 70
13	Camden Independent Telephone Co., Ltd.	Thos. I. Winter	Newburgh	1910	208	43	207	10,216	2,732 97	2,077 23
469	Cameron Telephone Co., Ltd	Mr. Louise Perrin	Cameron	1914	117	32	45	4,680	694 64	560 11
661	Camperdown Telephone Co., Ltd	A. E. Reekie	Camperdown	1920	9	5	10	800	70 00	52 00
117	Canadian Explosives, Ltd	J. C. Smith	Montreal, P.Q.	1915	1	C.P.R. Poles	9	130	15 25	40 00
10	Canadian Machine Tel. Co., Ltd., Brantford	F. D. MacKay	212 King St. W. Toronto	1909						
11	Canadian Machine Tel. Co., Ltd., Peterboro									
12	Canadian Machine Tel. Co., Ltd., Lindsay.									
380	Cannon Telephone Co				*See* Conboy Telephone System					
14	Caradoc Ekfrid Telephone Co., Ltd	G. W. Sponeburgh	Melbourne	1907	920	224	416	25,850	3,880 00	2,395 73
401	Carholme & Walsingham Telephone Co.	C. H. Wingrove	R.R. 1, Silver Hill	1908	22	7	7	330	37 50	46 37
684	Carlow Municipal Telephone System	J. W. Hudson	Boulter	1922	52	40	67	8,200	1,014 75	1,121 46
177	Carlsruhe Telephone Association	Charles Schwan	Hanover	1904	4	4½	9	300	58 00	44 00
593	Cavan Rural Telephone Co., Ltd	M. McDowell	Cavan	1917	53	15	30	2,348	658 24	515 72
110	Centralia Mount Carmel Tel. Co., Ltd.	S. Davis	224 Richmond St., London	1900	35	11½	25½	3,850	532 00	382 02
672	Centre Road Telephone Co., Ltd	J. G. Campbell	R.R. 1, Annan	1912	29	17½	38	2,006	352 70	407 35

241	Centre Thorah Telephone Co., Ltd.	Hugh McMillan	Beaverton	1909	17	8	16	600	283 21	135 26		
381	Champlain Point Telephone System											
526	Chapple Municipal Telephone System	Thos. Hood	Barwick	1915	164	97	270	15,000	3,409 03	3,924 63		
242	Chapleau Automatic Telephone Co., Ltd.	Geo. B. Nicholson	Chapleau	1923	In course of construction.							
86	Chatsworth Rural Telephone Co., Ltd.	A. A. Merriam	Chatsworth	1909	120	41	131	6,930	1,691 91	1,235 66		
138	Chelmsford Telephone System	R. V. Tremblay	Chelmsford	1916	38	42	46	6,000	1,500 00	1,863 75		
292	Chinguacousy Municipal Tel. System	W. D. Bowles	Mono Road	1911	640	170	1,600	37,000	10,412 90	7,299 01		
382	Chippawa Hill Telephone Co., Ltd.	J. F. Nickason	R.R. 1, Southampton	1913	28	11	28					
650	Chippewa Rural Telephone Co.	Joseph Dillon	Enterprise	1917	13	12	24	1,287	20 00	51 00		
180	Chisholm Municipal Telephone System	R. W. Butler	Alderdale	1917	38	34	68	6,000	651 33	586 07		
689	Christie Municipal Telephone System	Wells Thompson	Orrville	1922	46	21	75	4,603	324 87	302 04		
379	Clarendon Telephone Co.	R. H. Francis	Oso Station	1920	14	17	17	423	79 55	102 74		
489	Clavering Telephone Co., Ltd.	A. J. Smith	Clavering	1913	33	9	18	1,650	429 00	429 00		
46	Cochrane Municipal Telephone System	Frank Graff	Cochrane	1920	317	3½	208	45,098	10,259 24	9,731 95		
147	Coe Hill Rural Telephone System	W. N. Gilroy	Coe Hill	1906	32	20	21	1,000	788 25	433 26		
311	Colborne Municipal Telephone System	E. V. Lawson	R.R. 3, Goderich	1910	169	46	75	10,500	2,020 20	1,501 75		
206	Colchester North Mun. Tel. System	T. W. Weyburn	Essex	1909	326	71½	153	14,758	4,522 11	4,456 19		
25	Cold Springs Rural Telephone Co., Ltd.	Archie Bowman	Plainville	1918	287	60	320	4,000	3,051 59	2,519 22		
655	Coldstream Telephone System	A. G. McKenzie	R.R. 2, Ilderton	1908	265	100	250	14,500	2,506 71	3,913 14		
527	Coldwater Municipal Telephone System	H. Elliott	Coldwater	1916	122	¼	7	11,769	3,081 18	2,429 08		
380	Conboy Telephone System	H. A. Conboy	Sharbot Lake	1909	23	15	30	2,132	245 00	95 00		
16	Conn Telephone Co., Ltd.	Chas Duncan	Conn	1903	149	41	170	7,200	1,033 89	918 80		
505	Connaught Telephone Association	Wm. O. Kane	Cobden	1914	16	7	7	1,020	112 00	94 00		
426	Cooper Telephone System	A. E. Woodley	Milton	1911	Sold to Milton Telephone Co., Ltd.							
407	Cormac & Eganville Telephone Co., Ltd.	Rev. J. N. George	Cormac	1923	In course of organization.							
87	Coulson Jarratt Telephone Co., Ltd.	Jas. R. Reid	R.R. 4, Coldwater	1910	60	27	90	3,600	702 00	315 01		
528	Cramahe Municipal Telephone System	F. A. Black	Vernonville	1916	356	218	650	36,000	8,100 83	8,184 52		
88	Crediton Rural Telephone System	Dr. J. W. Orme	Crediton	1910	195	43	162	14,200	2,829 45	2,858 45		
604	Cresswell Telephone Co.	Ellsworth Davey	Cresswell	1912	23	6	6	1,000	60 00	305 90		
140	Crews Telephone Co., Ltd.	W. H. Crews	R.R. 6, Trenton	1908	10	5½	11	750	102 60	99 52		
29	Crown Hill Telephone Co., Ltd.	A. B. Coutts	Barrie	1915	120	28½	135	8,150	2,051 32	1,914 05		
575	Cultus & Marston Telephone Co.	C. Abbott	Langton	1913	14	10	10	200	42 00	38 60		
529	Daoust Telephone System	A. Daoust	Noelville	1915	42	25	25	2,150	600 00	100 00		
356	Dawn Municipal Telephone System	J. J. Harrison	R.R. 4, Dresden	1911	380	118	468	22,330	6,253 09	5,699 81		
623	Dawson Township Telephone Co., Ltd.	Geo. Bromley	Meldrum Bay	1919	16	13	13	738	55 00	32 41		
89	Derby Telephone Co., Ltd.	W. H. Hilts	Kilsyth	1909	125	22	107	7,326	2,205 03	1,832 75		
90	Desboro Telephone Co., Ltd.	E. F. Urstadt	Desboro	1910	156	48	166	5,450	2,170 90	1,414 37		
530	Desmond Rural Telephone Co., Ltd.	Alf. M. Bell	Moscow	1906	14	6½	6½	1,020	120 00	163 14		
185	Dingwall Telephone Co., Ltd.	Alex. Ross	R.R. 3, Woodstock	1913	10	3¼	6½	333	90 80	90 80		
310	Doane Telephone Association	Chas. F. Doane	Newmarket	1909	23	5½	11	2,695	379 50	162 92		
568	Doe Lake Telephone Co., Ltd.	Harold Hammond	Gravenhurst	1917	9	2	4	600	163 17	125 93		
531	Dominion Wood & Lumber Co., Ltd.	J. M. Snyder	Kitchener	1912	6	7	7	500	Private line no revenue			
309	Donegal Telephone Co., Ltd.	Jas. Howard	R.R. 2, Eganville	1919	22	18	16	3,400	121 00	134 00		

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
503	Dore Bay Telephone Co., Ltd	Wm. Sack	R.R. 6, Eganville	1914	30	12	24	1,500	259 94	259 70
136	Douro Municipal Telephone System	Maurice Condon	R.R. 4, Lakefield	1920	97	50	115	11,791	2,164 21	1,919 94
383	Dover Municipal Telephone System	John Grant	Eberts	1909	454	80½	701	24,556	10,614 15	10,267 00
244	Drummond Centre Telephone Co., Ltd	Bailey Code	R.R. 6, Perth	1909	112	140	280	11,500	1,187 57	1,504 00
510	Dryden Municipal Telephone System	J. E. Gibson	Dryden	1920	102	7	17	10,190	2,783 50	2,637 93
235	Dummer Municipal Telephone System	C. J. Darling	Warsaw	1921	187	88½	346	19,309	1,507 20	1,203 75
683	Dungannon Municipal Telephone System	Thos. Turriff	Detlor	1922	47	35	53	10,990	35 00	1,594 15
598	Dunnett Municipal Telephone System	R. H. Wilson	Warren	1918	48	15	30	2,514	536 90	795 79
219	Dunville Consolidated Telephone Co., Ltd.	J. P. Harrison	Dunville	1907	1,681	281	912	120,180	33,207 18	23,681 17
304	Dunsford Telephone, Light & Power Co-op. Assn., Ltd	John B. Kennedy	Dunsford	1907	186	77	246	11,522	2,452 03	1,526 02
18	Dunwich & Dutton Telephone Co., Ltd	John R. Cameron	Box 84, Dutton	1906	245	82	244	9,147	3,182 22	2,674 63
609	Durham Road Telephone Co., Ltd	Robert Goode	Walkerton	1918	15	3	6	1,387	140 17	140 17
687	Dysart Municipal Telephone System	Arthur Batchelor	Haliburton	1922	111	28	78	11,866	1,103 46	1,465 60
174	East Darlington Telephone Association	W. W. Down	Bowmanville	1911	8	3	6	300	109 80	122 80
384	East Grey Telephone Co., Ltd	L. G. Campbell	Markdale	1904	57	22	55	6,000	736 70	894 78
341	East Luther Telephone Co., Ltd	Wm. McKinley	Grand Valley	1902	371	64¼	228	10,265	3,427 05	3,269 79
19	East Middlesex Telephone Co., Ltd	K. M. Whitehead	Thorndale	1906	486	130	340	42,252	7,672 48	5,292 08
385	East Oakwood Telephone Co				Amalgamated with Oakwood Tel. Co., Ltd.					
460	East Woodville Telephone Co., Ltd	A. E. Benson	Woodville	1913	24	8¼	16½	1,790	203 72	192 90
324	Edgar Tel. Co., Ltd., The Robert Henry	Robert Henry Edgar	R.R.1, Waldemar	1906	400	162	235	11,000	1,100 00	1,100 00
453	Eganville & Brudenell Telephone Assn	D. J. Ryan	R.R. 2, Perth	Sold to Mun. of Brudenell & Lyndock.						
322	Egypt Telephone Co., Ltd	J. D. Windatt	Beaverton	1919	16	5½	11	1,450	115 00	150 50
278	Elderslie Salem Telephone Association	Geo. McKay	R.R. 2, Dobbinton	1912	Amalgamated with Progressive Tel. Co., Ltd.					
386	Eldon Union Telephone Co., Ltd	J. P. Campbell	Woodville	1912	90	22	44	4,545	1,098 70	1,027 82
280	Elgin Chaffey's Locks Telephone Co	Mrs. W. H. Fleming	Chaffey's Locks	1909	2	6½	13	900	49 30	43 81
513	Elizabeth Bay Mutual Telephone Co	Wm. Williams	Elizabeth Bay	1912	11	9	9	333	6 34	6 34
336	Elliott Private Telephone Line	Jas. Elliott, Jr	519 Wellington St. W, Sault Ste. Marie	1908	6	1	2	150	40 00	73 00
387	Ellis Rural Telephone Co	J. H. Drew	Cannington	1911	10	4½	4½	500	40 00	40 00
66	Elmsley South Rural Telephone Co., Ltd	Louise Klyne	Lombardy	1914	73	65	130	5,000	961 66	875 13
176	Elmtree Telephone System	Ryerson Kellar	Elmtree	1920	3	4	4	100	10 00	10 00
556	Emily Municipal Telephone System	Moses Ruth	R.R. 1, Omemee	1918	244	175	462	29,758	4,903 30	4,903 30
520	Emo Municipal Telephone System	E. T. McComb	Emo	1914	219	100	330	17,500	6,324 34	5,722 42
145	Ennismore Municipal Telephone System	J. J. O'Connor	R.R. 1, Ennismore	1920	101	61	120	12,543	2,786 18	2,536 08

600	Enterprise Telephone Co., Ltd.	W. J. Jackson	Enterprise	1921	76	16	47	4,320	846 58	801 40
21	Erie Telephone Co., Ltd.	E. G. Hoover	Selkirk	1906	1,722	307	1,080	112,998	30,996 88	29,447 05
166	Erin Municipal Telephone System	R. Bryan	R.R. 1, Hillsburg	1920	400	171	356	43,249	12,348 22	13,419 78
20	Ernestown Rural Telephone Co., Ltd.	S. M. Reid	Odessa	1909	342	100	400	21,000	5,963 12	3,972 67
357	Euphrasia Municipal Telephone System	T. I. Fawcett	R.R. 2, Markdale	1912	150	36	72	12,000	2,384 00	2,939 18
583	Evansville Mutual Telephone Co	D. N. Bailey	Evansville	1913	28	14	14	784	66 50	43 56
532	Everett Telephone Co., Ltd.	A. R. Kidd	Everett	1915	75	24	65	5,214	1,310 06	1,723 54
388	Evergreen Telephone Co., Ltd.	Patrick Foran	Douglas	1911	8	9	9	750	32 00	32 00
592	Excelsior Telephone Co., Ltd.	Alfred Carr	R.R.1,Woodstock	1910	23	6	20	1,320	345 00	241 25
533	Fairview Telephone Co., Ltd.	John L. Silcox	R.R. 7,Woodstock	1908	11	4	8	600	135 00	135 00
680	Fairyport Telephone Line	E. J. Ecclestone	Huntsville	1921	25	12½	32	4,343	490 00	415 00
281	Falkirk Telephone Co., Ltd.	Geo. L. Shipley	R.R. 3, Denfield	1907	280	110	160	17,100	5,196 17	4,945 47
590	Fallis Line Telephone Co., Ltd.	Nathaniel Belch	R.R. 3, Millbrook	1904	18	6	12	900	90 00	101 00
621	Faraday Municipal Telephone System	T. R. Towle	Bancroft	1919	39	30	60	4,800	487 00	483 31
472	Farmer Private Telephone Line	G. H. Farmer	Sault Ste. Marie	1908	2	1¼	2½	400	Priv. Line no reven'e	75 00
22	Fenella Rural Telephone Co	C. H. Brisbin	Fenella	1910	66	25	25	3,000	553 26	576 74
534	Fenelon Rural Telephone Association	John Smitheram	Fenelon Falls	1914	13	8½	17	398	196 75	53 15
517	Ferry Road Telephone Co., Ltd.	Mrs. Wm. J. McLean	R.R. 5, Perth	1917	61	32	91	9,940	830 20	204 50
389	Fifth Line Telephone Co., Ltd.	S. E. Tuck	R.R. 1, Bognor	1912	15	13	26	1,050	111 96	111 96
327	Fifth Side Line Telephone Association	Peter Bergan	Tenby Bay	1901	8	8	8	300	48 00	60 41
221	Fingal Telephone Co., Ltd.	D. J. Scott	Fingal	1909	286	95	312	5,850	3,383 99	3,550 52
451	Flos Municipal Telephone System	C. S. Burton	Elmvale	1913	575	132	523	35,977	10,081 13	10,332 11
332	Fordwich Rural Telephone Co., Ltd.	J. H. Rogers	Fordwich	1911	Sold to the Municipality of the Tp. of Howick.					
28	Forest Home Telephone Co., Ltd.	Jno. Allan	Orillia	1914	17	13	26	1,700	33 50	22 60
313	Fort Frances Municipal Telephone System	H. E. Marr	Fort Frances	1913	485	.....	530	22,198	11,810 13	10,807 01
202	Fort William Municipal Tel. System	C. J. Moors	Fort William	1902	3,690	9	11,291	307,165	112,826 37	90,453 04
392	Foster Bros. Telephone Co., Ltd.	L. J. Dick	Hyndford	1920	12	9	18	2,715	73 85	73 85
237	Fourteenth of Brant Telephone Co	N. M. Shouldice	Chesley	1912	14	4½	9	615	119 61	65 55
535	Fourth Line Telephone Association	Walter Peever	Haley's Station	1914	14	7	14	622	91 00	91 00
155	Fourth Line of Bathurst Tel. Co., Ltd.	A. B. McLean	R.R. 4, Perth	1912	8	1	2	300	60 00	40 00
282	Fraser Telephone Co., Ltd.	H. Kirkpatrick	R.R. 3,Woodstock	1910	13	3	6	650	172 60	118 65
283	Fretts & Brisco Telephone System	W. G. Fretts	Napanee	1908	9	4	26	400	60 00	105 95
516	Front Road Telephone Association	Walter Wright	Cobourg	1901	6	Line owned by Bell T. Co.			85 00	84 75
325	Gawas & Shore Road Telephone Co	Geo. Furky	Richards Landing	1908	14	13	13	900	5 88	5 88
92	Gillies Hill Telephone Association	James Crerar	Chesley	1909	18	6½	13	1,851	301 03	187 73
307	Gillies Telephone System	Wm. Gillies	Lion's Head	1899	285	204	278	14,500	4,943 58	4,386 75
344	Glasgow Private Telephone System	A. E. Glasgow	Cannamore	1910	364	95½	411	43,625	6,332 00	4,053 00
458	Glen Eden Telephone Co., Ltd.	John J. Walsh	Owen Sound	1912	15	4	8	400	100 75	101 00
664	Glenelg Municipal Telephone System	Thos. J. Brodie	R.R.2, Hol'd Cen.	1922	60	32	88	6,956	853 75	526 96
93	Glengarry Telephone Co., Ltd.	M. J. Morris	Alexandria	1907	302	103½	215	27,000	6,580 18	3,845 20
587	Glenview Rural Telephone Co., Ltd.	J. L. Jordan	R.R.3, Smith'sFls.	1917	46	35	70	4,777	657 88	429 19
673	Gloucester Township Telephone Co., Ltd.	.....	.....	....	.....	.....	.....	.....	.....	.....

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
222	Goderich Rural Telephone Co., Ltd.	Thos. Stothers	Dungannon	1910	617	158	1,122	53,235	11,772 82	6,778 16
207	Goderich Municipal Telephone System	Chas. E. Wise	R.R. 3, Clinton	1909	311	94½	189	25,666	3,319 50	2,678 91
647	Gooderham Telephone Association	Gordon D. Lake	Gooderham	1913	8	½	½	175		
536	Goodwood Rural Telephone Co., Ltd.	C. F. R. Taylor	Carleton Place	1915	240	75	468	23,216	3,951 68	1,518 75
506	Gordon Telephone Co., Ltd	A. Campbell	Foxey	1910	35	13	17	800	161 07	153 47
154	Gore Bay Municipal Telephone System	F. W. Major	Gore Bay	1914	116	7	39	6,700	3,373 21	3,369 69
599	Gore "G" Telephone Co., Ltd	Garfield Pearsall	R.R. 8, Picton	1917	18	7½	11	1,684	137 50	336 88
246	Gore Mutual Telephone Co., Ltd	F. C. Quick	R.R. 3, Harrow	1908	12	1½	1½	697	160 40	157 62
208	Gosfield North Municipal Tel. System	S. H. Wyatt	Cottam	1908	362	55½	177	22,485	6,408 61	5,845 75
442	Goulais Bay Telephone Co., Ltd.	Mrs. L. T. E. James	Goulais River	1912	17	27½	55	3,871	144 80	185 30
676	Grattan No. 7 Telephone Assn., Ltd	Wm. Kumm	R.R.4, Eganville	1921	20	15	30	3,600	125 50	125 50
345	Green Hill Telephone System	L. M. Mercer	Markdale	1909	17	5	10	2,491	247 50	146 50
247	Greenwood Telephone Association, Ltd.	Roy F. White	R.R.2, S.S. Marie	1910	12	3½	7	655	133 00	114 72
274	Grunwald Private Telephone Line	J. W. White	Huntsville	1912	17	5	10	1,473	287 92	351 46
134	Hagarty Municipal Telephone System	M. J. Grace	Killaloe	1922	48	17	30	7,500	1,768 30	785 69
537	Haldimand Municipal Telephone System	F. W. Hare	R.R. 5, Cobourg	1916	216	50	200	21,000	4,371 02	4,144 81
23	Haldimand Rural Telephone Co., Ltd	Thos. Hardcastle	R.R. 3, Cobourg	1906	220	77¼	137½	10,000	3,108 64	2,700 51
391	Haley's Station Rural Tel. Assn., No. 1	E. Foss	Cobden	1913	20	10	20	1,343	55 09	91 77
594	Haley's Station Rural Tel. Assn., No. 2	R. Gould	Haley's Station	1913	7	6	12	400	2 30	40
24	Halton Telephone Co., Ltd	W. E. Ford	Milton	1909	318	100	401	18,000	5,177 39	3,696 46
626	Hampshire Telephone Co., Ltd	Peter Gray	R.R. 4, Orillia	1918	15	7½	14	1,026	189 55	134 78
26	Harrietsville Telephone Association, Ltd.	C. B. Adams	Harrietsville	1903	565	141	519	15,857	11,025 38	9,289 07
306	Hartman Private Telephone Line	C. W. Hartman	Clarksburg	1912	4	1	1	100	Priv. Line no revenue	
359	Harvey Municipal Telephone System	Jno. P. Smith	R.R. 1, Peterboro	1911	57	35	70	3,862	1,024 75	914 06
94	Harwood Rural Telephone Co., Ltd	F. A. McFarland	R.R. 1, Baltimore	1907	38	25	25	1,442	457 00	621 61
666	Havelock Cordova Telephone Co., Ltd	G. A. Young	Havelock	....	Sold to Municipality of Belmont & Methuen.					
538	Hawley Telephone Co., Ltd	John Craven	R.R. 2, Bath	1913	18	7	24	990	90 00	90 00
346	Hawthorne Hill Rural Telephone Co., Ltd.	G. Y. Donaldson	Palmerston	1908	210	125	250	11,200	2,880 17	2,582 48
173	Hay Township Municipal Telephone System	Andrew F. Hess	Zurich	1912	666	160	502	37,674	9,820 21	8,137 71
27	Hazeldean Rural Telephone Co., Ltd	Bert G. Grant	Stittsville	1909	210	60	300	24,870	5,738 51	3,736 08
499	Head Lake Telephone Co., Ltd	M. J. Ryan	Kirkfield	1913	13	11	22	890	52 00	60 50
269	Henderson's Telephone System	Dr. W. J. Henderson	Cannington	1905	31	17	17	1,000	341 00	208 50
607	Herrington Telephone System	Thos. H. Herrington	Napanee	1915	32	8	16	1,200	384 00	273 00
139	Hilliard Municipal Telephone System	G. Harrison	Box 36, Thornloe	1921	53	21	42	6,398	2,162 21	2,701 87
393	Hoath Head & Grey Telephone Co., Ltd.	Neil McDonald	R.R. 6, Owen Snd.	1911	35	11	42	1,575	345 00	281 64

228	Home Telephone Co., Ltd.	D. R. Beaton	Whitevale	1905	1,642	474	1,602	144,124	37,821	98	33,895	98
239	Hope Lumber Company, Limited	C. N. Carney	Thessalon	1917	2	7	14	972	45	35	364	95
95	Hopetown Telephone Co., Ltd.	Wm. B. Donald	McDonald's Cnrs.	1908	227	136	222	15,116	3,198	41	3,894	43
96	Horton McNab Telephone Association, Ltd.	James Miller	Glasgow Station..	1909	138	70	175	5,000	2,140	51	1,403	97
331	Houghton & Bayham Telephone Co., Ltd.	A. J. Hutchinson	Pt. Burwell	1905	191	65	123	2,600	1,481	40	1,852	72
97	Houghton, Bayham & Tillsonburg Telephone Association, Ltd.	John Clark	Kinglake	1907	145	110	113	6,500	1,325	75	1,041	70
248	Houghton & South Walsingham Tel. Assn.	Lee M. Brown	Port Rowan	1909	62	14	60	2,400	930	00	192	00
157	Howick Municipal Telephone System	J. H. Rogers	Fordwich	1923	In course of organization.							
477	Howland Municipal Telephone System	J. H. Skippen	Sheguindah	1918	78	46	55	3,243	430	50	413	19
648	Hugel Mutual Telephone Co	E. A. Bartlett	Warren	1918	14	8	16	922	90	26	84	12
478	Humphrey Municipal Telephone System	A. A. Young	Rosseau	1922	92	30	120	8,456	2,194	00	2,194	00
194	Hungerford Municipal Telephone System	W. Courneya	Bogart	1923	In course of construction.							
539	Huntsville & Lake of Bays Tel. Co., Ltd.	F. A. Emberson	Hillside	1915	57	138	138	6,722	1,377	51	1,336	68
170	Huntsville & Portage Telephone System	Wm. J. Moore	Huntsville	1907	39	23	150	7,903	1,886	47	1,410	48
360	Huron & Kinloss Municipal Tel. System.	Angus Martyn	Ripley	1911	689	134	876	58,484	10,005	10	8,516	92
662	Hutt Private Telephone Line	Wm. Hutt	Milton	1907	Sold to the Milton Telephone Co., Ltd.							
675	Hyndford-Douglas Telephone Assn., Ltd.	W. Andrews	Hyndford	1919	15	7	14	1,406	112	10	87	05
149	Hyndman Telephone System	Dr. H. K. Hyndman	Exeter	1907	103	32	64	6,000	1,545	00	1,591	31
519	Ice Lake Telephone Co., Ltd	Andrew A. Robertson	Ice Lake	1913	36	21½	50	1,625	347	40	320	41
540	Indian River Telephone Co.	Wm. H. O'Meara	R.R. 7, Pembroke.	1914	10	5	10	680	67	89	62	90
31	Ingersoll Telephone Co., Ltd	E. F. Waterhouse	Ingersoll	1907	1,747	188	3,487	209,614	37,173	73	22,599	47
98	Ingleside Telephone Co., Ltd.	Thos. P. Hart	R.R. 8, Woodstock	1909	20	3	11	1,487	318	05	317	55
99	Innerkip Telephone Co., Ltd.	A. N. Hotson, M.D.	Innerkip	1906	599	154½	667	40,695	14,068	33	8,802	35
100	Innisfil Telephone Co., Ltd.	G. C. Allan	Lefroy	1910	110	30	110	5,100	1,515	14	1,157	39
645	Iron Bridge Telephone Co., Ltd.	Mrs. Will Bovill	Dayton	1920	38	27	55	6,175	713	68	623	99
394	Ivy Thornton Telephone Co., Ltd.	W. H. Hatton	Utopia	1909	203	60	220	11,500	2,646	77	2,020	16
395	Jackson Telephone Co., Ltd.	Peter Garvie	Kilsyth	1916	92	22½	50	7,506	1,701	80	1,567	70
320	Jocelyn Municipal Telephone System	H. E. Crowder	Carterton	1902	15	15	15	1,000	169	93	144	00
285	Johnston & Brandon Telephone Line	Lorne Beatty	Cannington	1907	15	9	18	500	170	00	170	00
455	Johnson Municipal Telephone System	Miss T. W. Bretz	Desbarats	1913	94	20	87	4,397	1,362	50	1,199	13
396	Kaladar & Northern Telephone Co.	S. G. Both	Northbrook	1910	19	33	33	2,000	235	00	175	00
143	Kawartha Telephone System	J. R. Bell	Millbrook	....	Sold to the Millbrook Rural Telephone Co., Ltd.							
591	Kemble & Sarawak Telephone Co., Ltd.	Chas. Husband	Kemble	1916	135	30	60	7,659	1,583	87	1,437	95
204	Kenora Municipal Telephone System	F. G. Hooper	Kenora	1902	958	13	526					
627	Keppel Rural Telephone Co., Ltd.	Edwin Cribbis	R.R. 2, Wiarton	1918	22	5½	17	1,630	198	00	59	84
541	Kerr Line Telephone Co., Ltd.	R. J. Headrick	Forresters Falls.	1911	110	35	83	1,898	376	25	381	25
586	Kerns Municipal Telephone System	E. Sackrider	R.R.1, N.Liskrd	1916	152	85	203	16,637	3,214	12	3,045	81
32	King Telephone Co., Ltd.	J. M. Winter	King	1907	Sold to Woodbridge & Vaughan Tel. Co., Ltd.							
397	Kingston Road Rural Telephone Assn.	Chas. H. Mallory	R.R. 5, Cobourg..	1911	10	½	1	400	98	10	98	10
263	Kirkegaard Private Telephone Line	Price, Cochrane & Co.	30 Sun Life Bldg., Toronto	1912	2	6	6	500	Priv. Line no revenue			

TELEPHONE SYSTEMS—*Continued*

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								$	$ c.	$ c.
628	Korah Base Line Telephone Co., Ltd.	John A. Holmberg	R.R. 1, S. S.Marie	1919	13	7½	15	1,386	110 50	110 50
209	Korah Central Telephone Co., Ltd.	R. M. Moore	R.R. 1, S.S.Marie	1922	40	22	44	4,300	563 64	560 04
608	La Cloche Telephone Co., Ltd.	W. G. Emiry	Massey Station	1915	13	13½	27	1,085	88 00	33 50
302	Laird Municipal Telephone System	Newman Johnston	Laird	1909	153	50	98	7,243	1,458 90	1,298 01
444	Lake of Bays & Haliburton Tel. Co., Ltd.	Jas. D. Smith	Baysville	1910	29	32	64	2,951	892 76	930 14
656	Lake Charles Telephone Co., Ltd.	W. A. Shier	R.R. 2, Wiarton	1920	45	30	60	3,600	632 25	694 61
101	Lake Shore Mutual Telephone Co., Ltd.	H. M. Cameron	R.R. 1,Kincardine	1910	40	19	55	2,000	264 85	264 65
399	Lambeth Telephone Co., Ltd.	B. L. Baulch	London	1912	9	14	28	2,687	603 40	552 11
60	Lambton Telephone Co., Ltd.	Thos. C. Hewitt	Sombra	1911	190	45	180	13,081	3,207 40	2,381 57
225	Lanark & Carleton Counties Tel. Co., Ltd.	John B. Wylie	Almonte	1909	360	153	584	28,218	6,557 47	5,149 51
102	Lanark & Ramsay Telephone Association	R. M. Ruttle	R.R. 1, Carleton P.	1909	65	38	83	5,000	604 78	564 78
226	Lansdowne Rural Telephone Co., Ltd.	S. E. Johnston	Lansdowne	1906	414	87	441	19,800	5,709 76	5,761 98
484	La Vallee Municipal Telephone System	S. B. Mattoon	Burriss	1914	187	123½	438	13,920	3,623 20	2,620 60
249	Lavant Dalhousie Telephone Co., Ltd.	James Park	Poland	1909	84	59	140	4,000	918 40	760 99
315	Lavant & Denbigh Telephone System	John D. Flake	Plevna	1921	102	131	131	9,680	1,159 25	605 75
606	Lee Valley Rural Telephone Co.	Ian A. McMillan	R.R. 1, Webbw'd.	1914	30	22	22	2,400	376 75	236 34
103	Leeds & Frontenac Telephone Co., Ltd.	C. C. Gilbert	Seeley's Bay	1908	567	135	1,060	27,000	7,651 98	7,960 37
33	Leeds & Grenville Ind. Telephone Co., Ltd.	W. M. Snyder	Spencerville	1908	687	222	597	27,564	11,551 12	14,162 01
104	Leith & Annan Telephone Co., Ltd.	A. Cameron	Leith	1908	88	50	100	6,915	1,043 30	868 83
34	Lennox Telephone Co., Ltd.	Thos. Gould	R.R. 3, Napanee	1908	82	30	140	8,040	1,457 24	1,127 19
400	Lightning Telephone Co	Mack Dick	Grattan	1921	14	11	22	1,500	140 00	140 00
152	Lily Creek Telephone Co	J. F. McKinnon	R.R. 2, Marmora	1922	9	6	12	900	63 00	50 31
82	Little Britain Telephone Co., Ltd.	Mrs. C. H. Lapp	Little Britain	1910	242	98	98	15,200	3,316 70	2,511 90
616	Livingstone Rural Telephone Co., Ltd.	J. D. McLennan	R.R. 2, Thessalon	1918	47	15	28	2,050	188 00	14 50
342	Loch End Ranch Private Telephone Line	W. R. Caldwell	Carleton Place	1923	1	½	2	240	Priv. Line	no revenue
416	London Township Municipal Tel. System	J. A. Hughes	R.R. 3, Ilderton	1923	In course of construction.					
184	Low Banks Telephone Co., Ltd.	A. Burkett	Wainfleet	1905	24	4	4	773	18 00	18 00
350	Lower Bonnechere Telephone Co., Ltd.	Wm. J. Sadler	Eganville	1922	10	6	12	1,200	80 99	80 99
187	Lucknow & Kinloss Telephone Co	H. C. Lane	R.R. 1, Holyrood	1907	19	18	18	1,500	256 98	109 23
300	Lyndhurst Rural Telephone Co., Ltd.	T. C. Robb	Lyndhurst	1909	285	67	337	19,000	4,625 43	3,758 01
271	Lyons Private Telephone Line	A. A. Lyons	Markdale	1907	52	17½	39	5,320	714 00	610 00
337	Maberly Telephone Co., Ltd.	L. V. Wood	Maberly	1912	41	16	71	2,907	536 75	409 38
497	MacDonald Municipal Telephone System	Edw. Hutchison	Echo Bay	1911	72	32	64	3,000	504 00	504 86
408	Macdonald Telephone Co.	C. Ostrander	Trenton	1912	30	9	27	1,968	217 32	217 32

105	Madawaska Telephone Association, Ltd.	Mrs. Kate Holbein	Burnstown	1909	63	28	56	2,966	1,112	13	643	76
635	Magnetawan Municipal Telephone System.	H. Q. Snuggs	Magnetawan	1921	147	64	207	21,342	3,048	18	3,258	39
210	Maidstone Municipal Telephone System.	A. Mousseau	Woodslee	1908	415	100	400	55,864	7,986	08	6,678	63
35	Malahide & Bayham Telephone Assn., Ltd.	N. H. McConkey	Straffordville	1909	433	97½	250	8,145	4,698	76	4,684	46
227	Mallorytown Telephone Co., Ltd	D. S. Mallory	Mallorytown	1916	276	96	300	18,000	5,368	74	3,220	43
251	Manilla Northern Telephone Co				Amalgamated with Oakwood Telephone Co., Ltd.							
522	Manilla Union Telephone Co., Ltd.	A. A. Dixon	Manilla	1908	185	56	107	6,500	1,311	09	1,280	80
620	Manilla Western Telephone Co.	Jas. Wright	R.R. 3, Sunderl'nd	1911	8	2	2	260	32	00	32	00
582	Manitoulin Island Rural Tel. Co., Ltd.	Wm. Vincer	Mindemoya	1911	225	165	226	6,623	3,053	15	2,601	64
30	Manitoulin & North Shore Telephone & Telegraph Co., Ltd.	G. H. Turner	Little Current	1892	33	203	203	19,000	3,829	41	3,131	48
471	Manse Grove Telephone Co., Ltd.	D. A. McFadyen	Lorneville	1912	57	32	64	3,240	1,221	24	1,149	72
681	Manvers Municipal Telephone System	W. R. Jakeman	Bethany	1921	209	62	219	13,119	3,731	23	3,753	79
402	Maple Grove Telephone Co.	Burnie Joynt	Shallow Lake	1912	24	12½	25	1,500	60	00	58	60
355	Maple Grove Telephone Co., Ltd.	Samuel McVannel	R.R. 1, Shelburne	1922	8	6	12	348	128	00	90	76
37	Maple Leaf Telephone Club	Service discontinued.										
403	Maple Leaf Telephone System	H. E. Coad	Oakwood	1907	Amalgamated with Oakwood Telephone Co., Ltd.							
545	Maple Leaf Telephone Co., Ltd.	P. W. Showell	R.R. 6, O. Sound.	1912	10	12	24	975	83	80	70	27
106	Mapleshade Telephone Co., Ltd.	W. S. Douglas	R.R. 3, Woodst'k.	1910	12	1¼	7	480	146	65	127	40
630	Maracle Telephone Line											
440	Mariposa Telephone Union	Leslie Mark	Oakwood	1909	Amalgamated with Oakwood Telephone Co., Ltd.							
404	Marmion Telephone Association	Wm. J. Walwood	R.R. 4, Chesley	1912	35	15	22	1,860	105	49	66	03
434	Marmora Municipal Telephone System.	Chas. Jones	Marmora	1923	In course of organization.							
649	Marmora Rural Telephone Co											
405	Martintown Rural Telephone Co., Ltd	W. W. W. Dean	Martintown	1912	180	48	103	11,725	5,186	12	1,529	00
188	Marysburg Telephone Co.	J. A. Cole	R.R. 3, Picton	1905	182	62½	125	13,000	3,000	00	2,165	20
406	Massey Station Telephone Co., Ltd.	E. T. Paquette	Cutler	1897	5	8	16	624	Did not oper. in 1923			
685	Mayo Municipal Telephone System	Construction of System not being proceeded with.										
182	McCreary Telephone Co., Ltd.	Harry McCreary	Latta	1906	300	102	356	26,100	3,988	50	5,605	80
668	McKellar Municipal Telephone System.	W. M. Taylor	McKellar	1921	120	63½	195	15,562	2,812	93	1,840	67
273	McKenzie Keward Rural Tel. System	John McKenzie	Chatsworth	1910	17	13	13	1,100	238	00	195	59
38	McKillop Logan & Hibbert Tel. Co., Ltd.	A. A. Colquhoun	R.R. 1, Staffa	1907	514	70	270	25,312	6,133	88	6,206	13
293	McKillop Municipal Telephone System.	J. M. Govenlock	R.R. 1, Seaforth	1908	416	181	505	32,447	5,685	53	5,558	21
398	McLean Telephone System	Mrs. Margaret Foster	McLean	1916	9	6	12	600				
107	McNab Telephone Co., Ltd.	Dr. J. E. Murphy	Arnprior	1910	172	72	172½	6,061	2,267	84	1,473	63
329	Medonte Municipal Telephone System	T. D. Robinson	Moonstone	1911	451	147	517	22,634	5,436	81	5,210	30
178	Melancthon Telephone Co., Ltd.	Jas. Porter	Corbetton	1915	49	19	56	2,400	599	25	649	28
270	Mersea Municipal Telephone System.	A. E. Newman	Leamington	1916	515	53	172	30,100	11,634	22	10,753	32
314	Metcalfe Rural Telephone Co., Ltd.	R. R. F. Blair	Metcalfe	1910	470	152½	540	23,457	5,823	41	6,103	41
543	Millard Private Telephone Line	C. G. Millard	Coldwater	1915	2	5	20	1,500	90	50	51	30
588	Millbrook Rural Telephone Co., Ltd.	W. W. Brown	Millbrook	1916	262	121	237	13,480	5,814	21	4,066	62
160	Mills' Telephone System	Geo. Mills	Thamesford	1904	95	50	200	6,000	1,082	00	200	00
426	Milton Telephone Co., Ltd.	A. D. McDuffee	Milton	1923	15	2½	5	450	177	12		
688	Minden Municipal Telephone System	R. H. Baker	Minden	1922	133	58	116	22,532	4,828	60	3,696	58
118	Minesing Telephone Co., Ltd.	E. M. Stokes	Minesing	1913	128	25	86	8,600	1,237	38	1,237	38

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
546	Mink Lake Telephone Co., Ltd.	Joseph Lisk	R.R. 3, Eganville.	1915	20	8	16	1,140	191 32	209 16
229	Minto Rural Telephone Co., Ltd.	W. D. McLellan	Harriston	1908	206	70¼	104	7,140	2,881 97	1,633 57
678	Mississauga River Improvement Co., Ltd.	N. K. McCrimmon	Blind River	1919	1	3	3	Private Line, no revenue.		
335	Mississippi Telephone Company, Ltd.	M. M. Knowles	Lanark	1911	114	40	109	5,736	1,418 70	1,231 61
39	Molesworth Independent Tel. Co., Ltd.	Alex. H. Crerar	R.R. 2, Wroxeter.	1909	101	26	68	4,330	1,423 91	1,091 74
567	Monck Municipal Telephone System	Thos. Mears	Beaumaris	1916	64	73	146	9,447	2,256 46	2,170 62
612	Mond Nickel Co., Ltd.	C. V. Corless	Coniston	1912	95	96	192	Priv. System, derives no rev.		
230	Monk Rural Telephone Co., Ltd.	T. E. Argue	Carp	1909	475	215	1,000	89,441	13,558 96	9,574 49
108	Mono Mills Telephone Co., Ltd.	Dr. H. V. Fagin	Mono Mills	1908	178	60	600	7,620	1,752 55	1,839 06
682	Monteagle & Herschel Mun. Tel. System	T. B. Robinson	Greenview	1922	129	79	316	15,733	1,993 37	3,199 88
190	Monteith Dempsey Telephone System	Nelson Monteith	R.R. 2, Stratford.	1910	87	25	80	7,600	1,685 87	1,220 57
631	Montreal (Ont.) Telephone Co., Ltd.	F. B. Warren	R.R. 1, Brechin	1920	23	10	22	2,530	138 00	120 48
449	Moore Municipal Telephone System	D. M. Johnston	Courtright	1912	822	191	790	46,550	15,661 39	14,167 26
298	Mooresburg & Desboro Tel. Co.	Walter W. Mair	R.R. 1, Desboro	1914	20	12	24	565	108 80	95 87
252	Mooresville Telephone Association	Dr. J. W. Orme	Crediton	1910	59	12	34	5,000	935 95	725 15
199	Morley Municipal Telephone System	Guy G. Gamsby	Stratton	1920	103	67	236	20,092	1,927 91	3,107 38
148	Mornington Municipal Telephone System	W. T. Shearer	Poole	1920	514	167	340	58,145	13,445 44	12,994 54
493	Moscow Mutual Telephone Co., Ltd.	A. N. Benn	R.R. 2, Moscow	1908	14	3	6	910	104 60	33 40
109	Moscow Rural Telephone Association	E. L. Van Luven	Moscow	1910	Central office only.			150	291 64	291 64
496	Mountain Telephone System	G. A. Bennett	Box 822, Midland	1922	13	4	9	1,188	287 32	203 26
42	Mount Albert Telephone Co., Ltd.	Jno. Moore	Mount Albert	1909	670	142	598	32,490	11,923 26	7,620 20
41	Mt. Forest, Wellington & Grey Tel. Co., Ltd.	J. B. Moon	Mount Forest	1908	254	127	380	16,951	2,402 36	2,282 88
474	Mount Granite Telephone Co., Ltd.	W. J. Anderson	R.R. 1, S.S. Marie	1913	23	12½	25	1,500	245 05	245 05
544	Mount Horeb Telephone Co., Ltd.	Jno. B. Morley	R.R. 2, Shallow L.	1913	23	6½	13	875	112 08	91 05
461	Mud Lake Telephone Co., Ltd.	John Cole	R.R. 6, Eganville.	1917	17	8¼	18	1,200	112 40	87 66
340	Murray Brighton Telephone Co.	D. S. Austin	Wooler	1911	399	116	455	45,657	5,943 80	5,572 38
40	Muskoka & Parry Sound Tel. System	W. E. Campsall	Emsdale	1922	76	33½	55	6,765	3,156 99	3,156 99
137	Muskoka Independent Tel. System	W. E. Campsall	Emsdale	1907	61	34	90	6,048	803 14	803 14
446	Muskoka River Telephone Co., Ltd.	Norman Scholey	Alport	1912	7	2	4	541	90 00	77 49
443	Muskoka, Victoria & Halib't'n Tel. Co., Ltd.	H. Buckler	Uffington	1912	51	30	44	5,987	934 55	654 40
457	Muskrat Lake Telephone Co., Ltd.	Ernest Collins	R.R. 1, Cobden	1913	17	10	20	411	37 00	118 00
473	Mutual Telephone Co., Ltd.	H. E. Dudenhoffer	Box 441, Orillia	1912	17	1	2	349	132 23	141 71
43	Nelson Telephone Co., Ltd.									
253	New California Rural Telephone Assn.	Norman Iler	Kingsville	1908	73	12½	72	5,351	1,386 70	2,226 03
44	New Dundee Rural Telephone Co., Ltd.	I. Lautenschlager	New Dundee	1908	198	60	180	8,500	3,810 81	3,590 85

45	New Glasgow Telephone Co., Ltd.	Arch. Maccoll	R.R. 2, Rodney	1909	150	46	274	6,000	1,736 20	1,888 31
167	Nipissing Private Telephone Line	J. B. Moore	Nipissing	1909	4	8	16	1,500	232 70	35 37
15	Nipissing Municipal Telephone System	Thos. Rowlandson	Nipissing	1922	42	17½	36	6,362	425 84	371 05
47	Nissouri Telephone Co., Ltd.	Robt. Oliver	Thamesford	1903	182	49	180	7,820	2,816 08	2,375 39
48	Noisy River Telephone Co., Ltd.	M. N. Stephens	Glencairn	1908	812	215½	1,078	60,120	14,773 60	9,038 08
49	Norfolk County Telephone Co., Ltd.	T. D. Duncombe	Waterford	1907	1,674	435	2,520	118,150	39,698 10	24,774 76
111	Norfolk & Tillsonburg Telephone Co., Ltd.	Albert Swinn	Tillsonburg	1906	283	72	359	14,931	2,148 17	3,038 10
112	Norland Independent Telephone Co., Ltd.	E. F. Le Craw	Norland	1907	23	11	22	500	11 85	61 99
488	Normanby Telephone Co., Ltd.	Geo. Damm	Ayton	1913	21	4½	9	700	163 10	137 36
151	North Algona Municipal Tel. System	Wm. J. Hugh	Golden Lake	1922	60	41	82	9,774	413 00	1,040 41
410	North Bonnechere Tel. Association, Ltd.	Walter Galbraith	R.R. 3, Renfrew	1912	14	8	16	800	175 00	175 00
113	North Brant Telephone Association	Bert Monk	R.R. 2, Elmwood	1908	48	20	46	1,250	487 61	360 12
348	North Brock Telephone Co., Ltd.	Albert Patton	Cannington	1919	11	4	8	550	44 00	49 12
549	North Cavan Telephone Co., Ltd.	J. A. Vance	Millbrook	1915	9	6	12	600	108 00	101 00
114	Northcote Farmers' Telephone Co., Ltd.	Thos. Atkinson	R.R. 3, Renfrew	1909	45	11	18	1,800	286 12	286 12
548	North Eastern Telephone Association	Earl Hodgins	Haley's Station	1913	20	18	36	850	28 50	28 50
294	North Easthope Municipal Tel. System	Margaret McGillawee	R.R. 1, Stratford	1910	463	83¼	532½	54,967	5,711 51	4,394 14
349	North Elderslie Telephone Association	Dave Graham	Dobbinton	1912	36	15	44	3,261	127 50	127 50
328	Northern Mutual Telephone Association	Chas. Jones	Marmora	1914	31	10	14	2,849	175 00	175 00
491	North Horton Telephone Association, Ltd.	Jas. R. Eady	Renfrew	1913	58	25	25	2,090	627 30	628 25
456	North Monck Municipal Tel. System	Albert J. Golz	Bardsville	1923	In course of organization.					
245	North Norwich Municipal Tel. System	E. Burpee Palmer	Norwich	1923	In course of organization.					
573	North Renfrew Telephone Co., Ltd.	L. O. Christman	Beachburg	1911	285	101½	201	22,000	6,301 40	6,263 01
563	North River Municipal Tel. System	John Wm. Fell	Coldwater	1915	69	20	82	6,000	1,607 65	1,381 27
231	North Wellington Telephone Co., Ltd.	D. T. Small	Arthur	1905	192	66½	157	11,795	2,924 68	2,512 95
440	Oakwood Telephone Co., Ltd.	A. L. Short	Box 24, Oakwood	1909	183	25	130	6,500	1,371 56	1,481 13
614	Oakwood Village Telephone Line	W. O. King	Oakwood	1908	Amalgamated with Oakwood Telephone Co., Ltd.					
659	O'Connell Rathburn Telephone Co., Ltd.	Jas. O'Connor	O'Connell	1920	16	5	10	1,580	196 00	195 74
17	O'Connor Municipal Telephone System	D. R. White	Kakabeka Falls	1922	19	12	30½	2,500	374 75	458 83
413	Oldfields Telephone System	F. Nixon	Dundalk	1909	15	3½	7	350	150 00	95 00
211	Oliver Municipal Telephone System	H. Gorton	Murillo	1911	101	33	202	10,750	2,855 65	2,054 65
192	Omemee Telephone Co., Ltd.	W. R. Robinson	R.R. 3, Omemee	1909	84	23½	65	2,960	984 00	548 00
51	Oro Telephone Co., Ltd.	J. M. Mitchell	Oro Station	1909	288	110	340	15,700	3,256 37	2,040 32
91	Orono Telephone Co., Ltd.	Dr. Neil Colville	Orono	1906	321	100	400	13,500	3,750 04	2,697 06
299	Orr Steinhoff Telephone Association	Wallace Thomson	R.R. 2, Chesley	1908	22	9	18	475	88 00	100 75
158	Osceola Telephone Association	Jas. V. Donegan	R.R. 4, Cobden	1913	13	7½	15½	1,695	219 42	115 77
361	Osprey Municipal Telephone System	Thos. W. Conron	Feversham	1912	214	32	64	23,247	3,129 62	3,409 74
485	Otonabee Municipal Telephone System	F. A. Eason	Keene	1914	369	75	382	28,410	6,365 58	6,166 86
212	Paipoonge Municipal Telephone System	A. J. McGugan	R.R. 1, Ft. Will'm	1909	73	33	54	7,200	2,165 85	1,760 89
459	Palace Road Telephone Co., Ltd.	Sid. C. S. McKim	Napanee	1911	43	11	44	3,000	649 23	474 38
414	Park Head Rural Telephone Co.	Bert Rourke	Park Head	1911	22	8	16	800	165 67	165 67
669	Parkhill Arkona Telephones, Ltd.	M. H. Chamberlain	Arkona	1922	235	117	465	24,000	4,772 70	5,138 21
550	Passmore Fowler Telephone Line	Jas. Fowler	North Bay	1915	17	3	6	1,700	301 00	61 95

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
171	Pastime Telephone Association	J. W. Seigel	R.R. 3, Cobden	1915	15	9	18	962	105 00	182 90
254	Peerless Telephone Co.	W. G. Cheasley	R.R. 5, Woodstock	1909	8	2	4	400	117 10	105 71
266	Pefferlaw Telephone System	W. A. Gibson	Wilfrid	1911	153	67	90	5,060	1,281 00	1,000 00
454	Pelee Island Municipal Tel. System	Hubert Taylor	Scudder	1913	119	25½	57	9,421	3,264 35	3,226 44
658	Pembroke & Mud Lake Telephone Co., Ltd.	Robt. J. Gouldie	R.R. 3, Pembroke	1921	11	5	10	825	114 50	114 50
255	Penhurst Telephone Co., Ltd.	A. G. Karn	R.R. 3, Woodstock	1920	9	2	4	540	114 13	115 39
317	People's Mutual Telephone Co., Ltd.	Arnold D. Way	Picton	1907	327	64	184	9,145	2,366 57	2,378 74
52	People's Telephone Co. of Forest, Ltd.	R. B. Crosbie	Forest	1906	647	562	1,118	13,158	10,863 81	7,666 19
53	People's Telegraph & Telephone Co., Ltd.	Miss W. V. Wallace	Bancroft	1905	72	3	50	8,845	1,531 76	3,994 46
551	Percy Municipal Telephone System	F. H. Mencilley	Warkworth	1916	538	141	560	51,100	12,376 55	11,962 44
81	Perry Telephone System	Fred. A. Perry	Napanee	1916	157	32	107	13,000	2,205 00	1,825 00
415	Perth & Christie's Lake Tel. Co., Ltd.	Dennis Noonan	Perth	1909	90	24	74	3,000	1,057 00	889 00
277	Petawawa Rural Telephone Co., Ltd.	John H. Paquette	R.R. 6, Pembroke	1923	In course of organization.					
196	Pine Grove Telephone Association	Neil O'Connor	R.R. 4, Orillia	1910	15	2	3	655	63 50	66 20
417	Pine Valley & Douglas Telephone Assn.	Arnold O'Neill	Eganville	1912	46	14	56	2,695	524 35	524 35
115	Pioneer Telephone Co., Ltd.	Thos. P. Hart	R.R. 8, Woodstock	1908	32	14½	29	1,024	649 61	649 18
625	Plane Settlement Telephone Co., Ltd.	Edward Plane	Madoc	1918	18	9½	19	1,200	150 00	148 67
552	Pleasant Valley Telephone Co., Ltd.	Milford Dupre	R.R. 6, Napanee	1914	28	8¼	21	1,712	305 45	211 00
553	Pleasant View Telephone Co., Ltd.	Harvey Roseborough	Owen Sound	1915	9	4	8	450	54 00	54 00
256	Plum Hollow & Eloida Telephone Co., Ltd.	S. Hollingsworth	R.R. 2, Athens	1909	300	60	240	52,000	3,814 88	3,235 25
150	Plummer, Aberdeen & Galbraith Rural Telephone Association	Angus McPhee	Ophir	1915	49	35	112	4,390	539 70	511 31
555	Plummer Add'l & Lefroy Mun. Tel. System	Thos. Humphries	Bruce Mines	1915	56	33	66	3,720	448 00	371 80
381	Point Champlain Telephone Co., Ltd.									
475	Point Mara Telephone Co., Ltd.	Frank Thompson	Brechin	1920	19	6	12	1,435	236 00	191 26
654	Pontypool Telephone, Light & Power Assn.	W. J. Goheen	Pontypool	1911	46	16	16	900	380 00	150 50
347	Porcupine Telephone Lines, Ltd.	Geo. H. Sedgewick	Room 1007 Excelsior Life Bldg., Toronto	1911	598	21½	690	66,921	26,196 89	20,021 17
203	Port Arthur Municipal Telephone System	F. D. Jackson	34 N. Cumberland St., Pt. Arthur	1902	3,210	40	3,860	310,936	86,204 75	89,438 41
54	Port Hope Telephone Co., Ltd.	A. M. Jones	Clarke	1899	352	140	352	21,695	7,235 37	3,047 59
554	Portland Rural Telephone Co.	Joseph Foster	Moscow	1915	10	6	6	400	30 00	30 00
565	Prescott Rural Telephone Co., Ltd.	C. F. Proudfoot	Fournier	1915	128	52	182	8,796	2,510 64	1,400 67
55	Princeton & Drumbo Telephone Co., Ltd.	W. H. Kipp	Princeton	1908	613	168	1,020	40,546	11,908 65	7,544 12
412	Progressive Telephone Co., Ltd.	David Graham	Dobbinton	1923	In course of organization.					

193	Provencher (A. J.) Telephone Line	A. J. Provencher	Silver Centre	1923	In course of construction.					
632	Purbrook & Fraserburg Tel. Co., Ltd	Matthias Harrison	Fraserburg	1920	24	16½	23½	4,464	441 20	386 58
515	Queens Line Telephone Co., Ltd									
165	Quinlan Telephone System	Dr. P. F. Quinlan	Stratford	1910	111	45	150	7,150	2,109 00	1,707 30
502	Radcliffe Municipal Telephone System	C. B. Dennison	Combermere	1923	20	22	44	3,743	131 70	117 00
480	Raglan Municipal Telephone System	A. E. Lidkie	Palmer Rapids	1923	29	23	46	3,484	In course of const'n.	
216	Railton Rural Telephone Line	Rev. Jno. A. Powell	R.R. 4, Kingston	1905	1	3	3	300	Priv. Line, no revenue.	
56	Rainy River International Tel. Co., Ltd	A. P. Mutchmor	501 McIntyre Blk. Winnipeg, Man.	1904		56	112	5,000	1,350 90	748 93
524	Rainy River Municipal Tel. System	E. E. Jess	Rainy River	1920	158	40	82	11,402	3,563 40	4,368 56
234	Rama Mara Telephone Co., Ltd	Archie L. McDonald	R.R. 2, Atherley	1923	In course of construction.					
490	Rankin Telephone Co	M. L. Davis	R.R. 4, Pembroke	1911	282	77	250	12,627	5,258 18	3,887 60
343	Ravenscliffe Telephone Co., Ltd	E. W. Tipper	Ravenscliffe	1912	33	16	46	2,367	675 41	446 59
671	Redden Telephone System	G. B. Redden	Tamworth	1922	68	20	40	4,150	1,187 43	887 43
441	Renfrew & Shamrock Tel. Association	Michael Quilty	R.R. 1, Renfrew	1914	18	16	32	1,552	180 00	107 11
257	Richard's Landing Mun. Telephone Club	S. Shipman	Richard's Land'g.	1910	31	1	9	2,500	269 00	269 00
445	Riverdale Telephone Co	F. B. Carscallen	R.R. 3, Napanee	1913	17	3	6	685	204 00	144 36
223	Riverside Telephone Co., Ltd	Elgin E. Harwood	R.R. 7, Woodstock	1913	9	1½	3	450	127 74	127 74
476	Riverview Telephone Line Co., Ltd	Henry Hart	Cannington	1924	In course of organization.					
512	Robinson Rural Telephone Co., Ltd	Geo. H. Frick	Silver Water	1911	32	14	14	429	84 24	82 22
213	Rochester Municipal Telephone System	F. A. Trepanier	St. Joachim	1907	530	85	400	51,149	9,746 62	9,034 47
617	Rocktown Telephone Association	Saml. Patterson	R.R. 5, Shelburne	1912	49	27	54	2,412	735 00	435 08
259	Rockwood & Oustic Telephone Co., Ltd	Frank Major	R.R. 1, Guelph	1907	89	28	102	7,607	1,465 23	961 91
486	Roddick & Crozier Telephone Co., Ltd	W. J. Wilson	Fort Frances	1917	Sold to the Municipality of Alberton.					
284	R.C. Episcopal Corporation of Kingston	Rev. H. J. Farrell	Enterprise	1912	1	3½	7	307	Priv. Line, no revenue.	
287	Romney Telephone System	A. J. Hyatt	Wheatley	1907	26	12	24	1,000	312 00	115 00
500	Rose Telephone Co., Ltd	Roy V. Maguire	Rydal Bank	1915	18	17	34	1,100	220 97	159 69
201	Rose Telephone Line	Leslie Mark	Oakwood	1911	Amalgamated with Oakwood Tel. Co., Ltd.					
181	Rosedale Rural Telephone Association	W. B. Brandon	Box 71, Fenelon Falls	1908	22	7½	15	800	117 60	112 80
419	Rosedale Rural Telephone Co., Ltd	T. E. Hagerman	Sydenham	1913	20	7	14	1,200	183 00	133 70
581	Rosseau Independent Telephone System	J. R. Bell	Rosseau		Sold to Municipality of Humphrey.					
508	Roseville Rural Telephone Co., Ltd	W. Jno. Jones	R.R. 1, Smith Falls	1922	16	5½	11	1,812	57 30	46 23
561	Rox Rural Telephone Association	Sam'l Olmstead	Cobden	1914	16	7	14	1,525	105 55	105 55
462	Roxborough Mun. Telephone System	Murdoch McLeod	Moose Creek	1918	250	74	266	20,510	6,555 55	6,372 26
633	Rumney Settlement Telephone Co., Ltd	J. B. White	Coboconk	1919	15	9	18	1,835	213 97	155 97
57	Rural Telephone Co. of Kitley, Ltd	I. E. Lockwood	Newbliss	1907	283	81	316	21,011	4,643 18	3,229 26
420	Russell Rural Telephone Co., Ltd	Wm. Clarke	Navan	1911	236	77	260	16,012	4,683 46	3,600 00
169	Russell Telephone System	Dr. A. L. Russell	Bailieboro	1906	110	60	60	3,500	950 00	683 00
634	Rutherglen Rural Telephone Co., Ltd	Joseph H. Rose	Rutherglen	1920	22	16	32	2,310	24 40	22 00
562	Rydal Bank Plummer Telephone Co., Ltd	Mrs. W. Graham	Plummer	1915	15	17	34	946	229 43	114 60
243	Ryde Municipal Telephone System	Robt. McKay	Gravenhurst	1923	61	31	138	9,355	In course of const'n.	

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
597	Saginaw Telephone Co	J. W. Wakelin	Cannington	1917	5	1	2	120	37 50	37 50
260	Salem Telephone Association	Chas. M. Carruthers	Bowmanville	1909	6	3½	7	470	50 00	50 00
224	Salem Telephone Line	Eugene Bateson	Cresswell	1908	Amalgamated with Oakwood Tel. Co., Ltd.					
262	Salkeld Telephone System	J. W. Salkeld	R.R. 2, Goderich	1922	6	Leased from B. T. Co.		110	69 52	69 52
297	Sandwich South Mun. Telephone System	Jas. McAuliffe	Maidstone	1911	314	76	152	17,375	4,558 79	3,686 20
421	Sandwich West Co-op. Telephone Co., Ltd.	Wm. Pajot	Loiselleville	1909	119	26	122	13,000	2,861 30	2,969 33
422	Saugeen Rural Telephone Co., Ltd.	E. R. Doll	R.R. 1, Southampton	1911	17	2½	10	1,450	124 00	52 00
58	Scarboro Independent Telephone Co., Ltd.	Thos. W. Maxwell	R.R. 1, Agincourt	1905	577	138	551	88,989	8,481 58	5,628 00
59	Schomberg Telephone Co., Ltd.	Herb. H. Sawdon	Schomberg	1910	329	85	338	24,383	6,343 01	6,144 86
618	Scotch Corners Telephone Co.	R. O. Gardiner	R.R. 1, Carleton Place	1915	Amalgamated with Lanark & Ramsay Tel. Co., Ltd.					
120	Scotch Line & Stanleyville Tel. Co., Ltd.	G. F. Wilson	R.R. 3, Perth	1910	65	24	48	6,400	313 65	269 66
288	Scratch & Palmer Telephone System	Chas. A. Palmer	Kingsville	1906	10	2½	5	336	105 50	105 50
303	Seagrave Telephone Line	Jas. Watson	Sonya	1913	21	20	20	700	222 50	214 45
268	Sebright Telephone Co., Ltd.	T. Walter Deverell	R.R. 1, Sebright	1913	78	62	118	5,700	1,114 91	1,098 04
195	Sebringville Telephone Co., Ltd.	A. C. Werner	Sebringville	1898	388	80	495	24,108	6,849 54	3,871 99
318	Second Line Drummond Telephone Co., Ltd									
423	Section Telephone Association	Morley Wigle	Kingsville	1905	12	2	2	265	130 00	128 09
448	Selby Telephone Co., Ltd.	Thos. I. Winter	Newburgh	1913	104	30	200	7,768	1,660 00	1,149 79
624	Shakespeare Telephone Co., Ltd.	J. B. Spellman	Webbwood	1919	4	3	6	100	12 00	12 00
144	Sherwood Municipal Telephone System	H. J. Chapeskie	Barrys Bay	1922	21	14	46	49,000	820 18	540 34
424	Shuniah Municipal Telephone System	E. E. Thomas	Intola	1913	126	54	228	16,233	6,811 98	4,942 34
30	Sidney Bell Telephone Co.	Geo. Cummings	R.R. 5, Trenton	1909	81	2	31	2,500	1,548 00	1,592 00
425	Silcote Telephone Co., Ltd.	Thos. Farquharson	R.R. 1, Annan	1912	50	23	53	4,625	575 00	356 43
267	Silver Creek Telephone Co., Ltd.	J. E. Hyatt	R.R. 3, Wiarton	1917	27	9¾	19½	2,760	318 00	318 00
212	Slate River Municipal Telephone System	*See* Paipoonge Municipal Telephone System.								
272	Snake River Telephone Co., Ltd.	H. M. Shields	R.R. 3, Cobden	1911	52	7	41	1,690	433 84	408 93
498	Sonya Telephone Line	E. Ferguson	Cresswell	1914	34	16	16	650	175 00	175 00
390	South Algona Mun. Telephone System	John Nelan	Ruby	1923	In course of organization.					
197	South Brant Rural Telephone Co., Ltd.	Charles Juergens	R.R. 2, Walkerton	1911	25	5	10	1,200	196 50	205 57
232	South Bruce Rural Telephone Co., Ltd.	J. N. Schefter	Mildmay	1910	736	165	550	39,879	7,752 19	6,091 59
427	South Colchester Telephone Co., Ltd.	Evan Wright	Harrow	1911	11	3	3	352	84 02	84 02
123	South Crosby Rural Telephone Co., Ltd.	J. S. Dargavel	Elgin	1910	425	121	379	30,000	5,958 59	5,788 60
428	South Diagonal Telephone Co., Ltd.	W. J. Saunders	R.R. 7, Owen Sound	1911	80	49	98	3,700	1,133 60	1,057 29
333	South Elderslie Telephone Association	W. E. Patterson	R.R. 3, Chesley	1911	37	16	38	1,755	185 00	54 04

470	South Janetville Telephone System	J. R. Hall	Janetville	1918	20	8	8	648	16 12	14 37
61	South Leeds & Pittsburg Tel. Co., Ltd.	R. E. Sliter	Gananoque	1908	272	68	410	12,500	3,992 30	3,682 58
62	South Malahide Telephone Co., Ltd.	Addison Turrill	Aylmer	1905	971	93	395	6,000	17,193 80	11,616 10
429	South McNaughton Telephone Co., Ltd.	J. E. Cole	R.R.2, Renfrew	1911	14	6	12	500	131 35	104 70
642	South Norfolk Telephone Co., Ltd.	T. D. Duncombe	Waterford	1920	236	42½	212	18,421	6,057 35	2,997 54
564	South Plantagenet Rural Tel. Co., Ltd.	D. L. Scott	Fournier	1915	174	32	61	13,827	2,438 00	1,467 90
580	South Walsingham Telephone Co., Ltd.	C. S. Ross	Walsingham	1917	35	10	19	1,000	190 65	153 62
63	Southwold & Dunwich Tel. Assn., Ltd.	John H. Sells	Shedden	1906	302	128	151	8,703	3,706 75	3,018 88
183	Sparrow Lake Private Telephone Line	Orma T. Clipsham	Sparrow Lake	1908	12	5	10	675	152 96	68 48
352	Sparta Rural Telephone Co., Ltd.	J. E. Turrill	Sparta	1910	180	48	134	6,600	1,918 91	2,169 50
142	Spence Monteith Telephone Co., Ltd.	Harold Smith	Seguin Falls	1923	21	22	30	3,315	261 00	47 00
479	Spey River Telephone Co., Ltd.	A. Cromar	Chatsworth	1913	11	1	2	435	88 60	88 60
198	Sprague Telephone System	Miss L. Sprague	Mountain View	1898	450	125	500	26,500	7,070 00	5,214 54
64	Springbank Telephone Co., Ltd.	J. H. Rogers	Fordwich	1909	Sold to Municipality of Howick.					
122	Spring Creek Telephone Co., Ltd.	W. J. Burton	R.R.6, Woodstock	1909	11	¾	1½	419	171 30	148 91
430	Spring Creek Telephone Co	George S. Hendry	R.R. 2, Hepworth	1910	21	9	18	770	151 60	138 00
686	Stanhope Municipal Telephone System	Angus Coulter	Boskung	1922	78	49¼	165½	13,983	2,737 86	2,088 09
159	St. Johns Telephone System	D. Gray MacNeill	R.R. 2, London	1907	279	75	375	26,800	5,527 50	5,097 65
330	St. Joseph Island Telephone Co., Ltd.	H. Hyland	Richards Landing	1917	120	59	59	2,125	2,038 56	1,588 99
65	St. Marys Medina & Kirkton Tel. Co., Ltd.	E. N. Shier	Kirkton	1915	1,129	263	1,206	81,227	18,809 74	17,324 93
431	Stormont Telephone Co	E. L. Brown	Aultsville	1908	41	14	14	3,400	401 00	158 00
153	Strong Municipal Telephone System	A. M. Church	Sundridge	1923	In course of organization.					
432	Stroud Telephone Co., Ltd.	W. Lennox Black	Craigvale	1911	256	44	182	13,555	4,004 77	2,938 83
214	St. Vincent Municipal Telephone System	Geo. G. Alberry	Meaford	1910	533	110	720	32,528	8,666 25	7,222 18
433	Sullivan & Bentinck Telephone System	Alex. McGregor	R.R. 4, Chesley	1911	20	8	16	1,000	92 00	12 00
521	Sullivan & Elderslie Telephone Co	J. A. Woelfle	Chesley	1911	18	7½	15	900	95 15	95 15
67	Sunderland Telephone Co	R. A. Purvis	Sunderland	1907	275	82	206	15,989	3,671 00	2,909 45
312	Sunny Valley Telephone Co., Ltd.	A. R. Merriam	Chatsworth	1910	9	2½	5	360	122 06	108 14
603	Sunshine Telephone Line	J. E. Lownsbrough	Oakwood	1909	Amalgamated with East Oakwood Tel. Co., Ltd.					
189	Superior Telephone Club	J. Coulter	R.R. 1, S.S. Marie	1918	4	1½	3	324	56 00	56 00
660	Suroff Telephone System	Jas. Park	R.R. 1, Hanover	1920	184	78	281	12,750	2,987 45	2,627 71
124	Sutton & North Gwillimbury Tel. Co., Ltd.	R. T. Sturtridge	Sutton West	1910	175	35	98	15,000	2,340 00	2,562 76
200	Swale Telephone System	Cecil Swale	Wiarton	1908	15	19½	39	1,631	286 85	38 70
436	Sydenham Union Telephone Co., Ltd.	E. L. Kemp	R.R.6, OwenSound	1911	23	6	12	1,265	288 62	299 22
353	Tara Keady Telephone Co., Ltd.	Albert Fleming	R.R. 5, Tara	1912	34	11½	32	3,060	423 27	301 11
323	Tarbutt Municipal Telephone System	W. E. Hollingsworth	MacLennan	1912	65	25	52	4,267	903 28	737 87
233	Tarentorus Telephone Co., Ltd.	Gladys Tichy	Box 845, Sault Ste. Marie	1910	26	8	24	2,421	520 00	180 00
301	Tay Municipal Telephone System	G. W. Allison	Victoria Harbor	1911	207	40	96	14,959	3,154 88	2,426 22
68	Temiskaming Telephone Co., Ltd.	P. R. Craven	New Liskeard	1905	1,873	301	2,640	252,195	63,869 58	58,351 11
296	Temiskaming & Northern Ontario Railway	W. H. Maund	North Bay	1905	142	335	1,778	142,439	70,970 78	32,039 60
186	Tenth Concession Alice & Fraser Tel. Co., Ltd.	Ernest Rogge	R.R. 7, Pembroke	1923	In course of construction.					
69	Thamesville Telephone Co., Ltd.	G. C. Hubbell	Thamesville	1909	604	124	330	35,700	9,131 25	7,358 46

TELEPHONE SYSTEMS—*Continued*

Summary of Returns from Telephone Companies, Municipalities and Individual Owners of Telephone Lines up to December 31st, 1923.

No.	Name of Company or System	Secretary, Manager or Owner	P.O. Address	Year started	No. of telephones	Miles of poles	Miles of wire	Capital expended	Receipts	Expenditure
								$	$ c.	$ c.
70	Thedford Arkona & East Lambton Tel. Co., Ltd.	F. D. Case	Thedford	1910	364	66	304	16,467	5,661 51	4,186 90
487	Thessalon Municipal Telephone System	Theo. E. Clinton	Thessalon	1914	76	30¾	94½	5,902	1,319 56	1,292 45
643	Tichborne Telephone Co., Ltd.	J. A. Kennedy	Tichborne	1920	24	11	22	2,028	1 55	14 68
179	Tilbury East Municipal Telephone System.	M. Ada Farquharson	Merlin	1918	353	115	187	13,300	6,292 17	5,814 10
362	Tilbury West Municipal Tel. System	J. W. Brown	Comber	1911	553	120½	284	33,295	12,206 00	9,809 39
161	Tiny Municipal Telephone System	Jos. E. Brunelle	Lafontaine	1922	81	17	60	6,577	2,217 38	1,460 80
450	Town Line of Brant & Elderslie Tel. Assn.	Thos. A. Paterson	R.R. 1, Chesley	1911	16	5½	11	480	115 00	115 00
559	Town Line Tel. Assn. Pembroke & Stafford Ltd.	Richard Biggs	R.R. 4, Pembroke	1918	10	4	8	550	56 00	56 00
295	Tuckersmith Municipal Tel. System	Jno. B. Mustard	Brucefield	1909	842	213	1,095	62,596	10,497 37	10,190 47
6	Tyendinaga Municipal Tel. System	Jno. J. Farrell	Lonsdale	1918	112	52	104	18,000	1,900 31	1,560 65
595	Udney Telephone Co., Ltd.	Alex. Martin, Jr.	Udney	1917	94	33	93	6,251	778 95	778 95
463	Uhthoff Telephone Co., Ltd.									
290	Ungers Telephone System	Edw. Starling	St. Williams	1909	14	5	5	385	135 20	129 74
354	Union Telephone Co., Ltd.	O. B. Henry	Drayton	1909	431	110	250	21,643	8,302 28	6,200 39
71	United Telephone Co., Ltd.	A. Stoner	Denfield	1910	Sold to Municipality of Township of London.					
574	Upper Admaston Rural Telephone Line	Thos. Rowan	R.R. 2, Renfrew	1917	33	14	28	1,806	464 32	432 06
495	Uptergrove Telephone Co., Ltd.	Henry Wainman	Uptergrove	1914	15	8½	17	858	199 16	199 16
72	Urban & Rural Telephone Co., Ltd.	Eugenie La Fevre	Bothwell	1910	505	135¾	453	40,786	8,598 14	5,802 76
637	Valley Farm Private Telephone Line	Mark Taylor	Parry Sound	1918	4	3	6	1,000	35 00	40 00
481	Verner Telephone Co.	C. Poitras	Verner	1919	System destroyed by fire, not operating.					
547	Verona & Bellrock Telephone Co., Ltd.	Eugene Goodberry	Verona	1914	29	7	14	832	87 16	105 35
638	Verona & Frontenac Telephone Co., Ltd.	Mrs. J. A. Hill	Godfrey	1920	97	45	90	6,000	1,111 35	954 72
452	Vespra Municipal Telephone System	A. B. Coutts	Barrie	1913	190	54	178	11,750	3,438 85	3,435 79
639	Victoria Rural Telephone Co., Ltd.	W. H. Whalen	Walford	1918	31	11¾	23½	2,250	300 00	291 03
640	Victory Telephone Co., Ltd.	Geo. Anderson	R.R. 4, Chesley	1920	80	22½	100	8,400	391 20	391 20
125	Violet Hill Telephone Co., Ltd.	Jas. Horner	Camilla	1910	11	9	18	650	30 00	78 00
636	Wahnapitae Power Co., Ltd.	A. H. Skene	Sudbury	1919	1	25	25	2,487	Priv. Line, no revenue.	
126	Wallacetown & Lake Shore Tel. Assn., Ltd.	S. V. Jones	Wallacetown	1905	255	69	127	6,180	2,589 40	2,442 15
264	Walsingham Centre & Port Rowan Tel. Co., Ltd.	Lorne Anger	Walsingham	1908	18	9	11	800	15 00	38 00
351	Waterloo Municipal Telephone System	Anson Groh	R.R. 2, Preston	1913	387	114	630	23,334	5,039 82	4,570 14

566	Watt Municipal Telephone System	Mark Kay	Ufford	1916	124	50	150	11,981	6,958	49	6,635	38
220	Webster & Falls Telephone Line	J. H. Falls	Oakwood	1904	Amalgamated with Oakwood Tel. Co., Ltd.							
73	Welland County Telephone Co., Ltd	C. N. Glenny	Bridgeburg	1906	1,775	220	2,260	124,835	36,245	43	22,632	90
641	Wellesley Municipal Telephone System	J. C. McKay	Wallenstein	1919	556	140½	662	59,079	14,885	44	14,801	50
585	West Campbell & Mills Tel. Co., Ltd	J. C. Baker	Poplar	1917	46	42	42	2,300	419	12	460	58
74	West Garafraxa Tel. Co-op. Assn. Ltd	Hugh McDonald	Belwood	1905	95	39	78	4,646	1,365	35	1,276	50
622	West Lake Telephone Co., Ltd	Fred. C. Schoen	Massey	1917	11	7½	15	925	72	00	72	00
447	Westmeath Seventh Line Tel. Co., Ltd	Alex. M. Barr	Beachburg	1921	16	7	14	960	133	23	80	10
576	Westport Rural Telephone Co., Ltd	J. F. McNally	Westport	1913	332	75	300	21,750	5,788	11	5,591	87
316	West Tay Municipal Telephone System	T. W. Brown	Victoria Harbor	1923	In course of organization.							
75	West Williams Rural Telephone Assn	J. D. Wilson	R.R. 3, Kerwood	1910	168	63	198	11,354	2,157	41	2,064	55
76	Wheatley Telephone Co., Ltd	R. N. Epplett	Wheatley	1908	371	105	450	22,946	6,108	50	4,201	24
286	White Telephone Co., Ltd	Edw. Brackenbury	Leamington	1907	19	5	12	1,140	285	00	283	17
258	White Star Telephone Line	J. A. Anderson	Woodville	1909	Amalgamated with Oakwood Tel. Co., Ltd.							
670	Whitestone & Deer Lake Telephone Line	E. C. Bennett	Ardbeg	1923	12	12	12	2,000	240	00	216	50
570	Widdifield Municipal Telephone System	John A. Carmichael	North Bay	1915	48	22	64	5,419	1,598	75	1,587	80
172	Wightman Telephone System	R. Wightman	Clifford	1909	280	70	180	15,000	4,155	00	3,645	00
494	Wilberforce Telephone Co	Angus Warren	Eganville	1913	22	6	12	1,525	13	00	25	00
466	Wilmot Municipal Telephone System	A. R. G. Smith	New Hamburg	1922	276	126	500	19,134	4,837	83	5,741	36
483	Windham Telephone Co	J. C. Boll	Delhi	1912	26	16	36	1,750	390	00	214	45
482	Winter Private Telephone Line	W. A. Winter	Aurora	1907	8	3	6	500	80	00	44	00
439	Wolford Rural Telephone Co., Ltd	Wm. Ballantyne	Eastons Corners	1909	86	14½	29	4,970	865	00	765	00
168	Wolftown Telephone Co., Ltd	G. Spence	Cobden	1913	21	11	22	1,020	215	40	234	34
321	Woodbridge & Vaughan Tel. Co., Ltd	Dr. Fred. W. Routley	Maple	1910	1,077	134	797	51,536	18,118	75	16,536	22
438	Woodford Telephone Co., Ltd	Emerson Long	Woodford	1912	32	13	36	2,355	256	00	244	78
127	Woodville Glen Telephone Assn	N. A. Jamieson	Woodville	1910	30	7	16	1,400	325	62	261	08
326	Worthington Municipal Telephone System	Edmund Kearney	Sleeman	1921	26	13	38	3,764	768	48	736	81
77	Wroxeter Rural Telephone Co., Ltd	E. P. Hazlewood	Wroxeter	1909	382	73½	290	15,700	5,399	56	4,612	07
339	Yarker Rural Telephone Co., Ltd	Earl Warner	Yarker	1921	68	25	35	5,000	588	00	389	68
651	Yarker Telephone Co	Manly Foster	Yarker	1915	8	.....	2½	310	522	53	522	53
78	Yarmouth Rural Telephone Co., Ltd	Geo. Westlake	R.R. 8, St. Thomas	1908	116	30	50	4,934	2,014	82	1,803	68
571	Zion Line Telephone Association, Ltd	S. McMillan	Cobden	1912	22	7	14	166	296	36	277	70
674	Zion & Wolseley Telephone Co., Ltd	Wm. H. Reckin	R.R. 1, Wiarton	1909	19	12	24	1,140	275	00	275	00
128	Zorra Telephone Co., Ltd	R. H. Green	Embro	1906	178	59	164	10,707	3,202	21	3,406	78

ESTIMATED NUMBER OF TELEPHONE STATIONS IN THE DOMINION OF CANADA

	1922	1923	Dec 31st, 1922	Dec. 31st, 1923
Bell Telephone Company of Canada:				
Quebec	130,120	149,537		
Ontario	304,023	336,704		
	434,143	486,241	434,143	486,241
Local Telephone Systems in Quebec and Ontario in which the Bell Company is interested, or with which it is otherwise connected, viz.:				
Quebec	29,716	30,523		
Ontario	89 723	94,855		
	119,439	125,378	119,439	125,378
Local Telephone Systems in Quebec and Ontario in which the Bell Company is not interested, or with which it is not otherwise connected, viz.:				
Quebec	5,235	5,350		
Ontario	12,613	12,283		
	17,848	17,633	17,848	17,633
PRINCE EDWARD ISLAND				
The Telephone Company of Prince Edward Island	2,908	2,073		
Connecting	1,142	1,208		
Non-connecting	.....	.....		
	4,050	4,181	4,050	4,181
NOVA SCOTIA				
Maritime Tel. & Tel. Co	31.183	31,977		
Connecting	6,233	6,324		
Non-connecting	.....	.....		
	37,416	38,301	37,416	38,301
NEW BRUNSWICK				
New Brunswick Tel. Co	25,119	25,696		
Connecting	1,278	1,808		
Non-connecting	1,557	316		
	27,954	27,820	27,954	27,820
MANITOBA				
Manitoba Government System	65,376	62,955		
Connecting	3,016	3,316		
Non-connecting	28	28		
	68,420	66,299	68,420	66,299
SASKATCHEWAN				
Saskatchewan Government System	32,061	31,857		
Connecting	65,142	65,414		
Non-connecting	247	247		
	97,450	97,518	97,450	97,518
ALBERTA				
Alberta Government System	52,379	52,811		
Connecting	14,427	14,468		
Non-connecting	.....	.....		
	66,806	67,279	66,806	67,279
BRITISH COLUMBIA				
British Columbia Tel. Co	73,680	76,948		
Connecting	1,422	1,162		
Non-connecting	5,450	5,610		
	80,552	83,720	80,552	83,720
Yukon Tel. Syndicate	.....	.....	350	350
Unknown or unaccounted for	.....	.....	*8,017	*8,062
Total	.....	.....	962,445	1,022,782
Increase—6.2 per cent.				

NOTE:—The above statistics were prepared by the Supervisor of Statistics of the Bell Telephone Company of Canada from best unofficial sources available.

*These figures represent 2 per cent. of the total stations, exclusive of those owned by the Bell Company and those operated in the Provinces of Ontario and Quebec in which the Bell Company is interested or with which it is otherwise connected.

COMPARATIVE TELEPHONE DEVELOPMENT TO POPULATION
(DOMINION OF CANADA)

Province	Official Census1921	Telephones Dec. 31, '22	Percent. Telephones to Pop. Dec. 31, '22	Telephones Dec. 31, '23	Percent. Telephones to Pop. Dec. 31, '23
Quebec	2,361,199	165,071	6.9	185,410	7.8
Ontario	2,933,662	406,359	13.08	443,842	15.1
Prince Edward Island	88,615	4,050	4.5	4,181	4.7
Nova Scotia	523,837	37,416	7.1	38,301	7.3
New Brunswick	387,876	27,954	7.2	27,820	7.1
Manitoba	610,118	68,420	11.05	66,299	10.8
Saskatchewan	757,510	97,450	12.8	97,518	12.8
Alberta	588,454	66,806	11.3	67,279	11.6
British Columbia	524,582	80,552	15.3	83,720	15.9
Yukon	4,157	350	8.4	350	8.4
Northwest Territories and Royal Canadian Navy	8,473	.....	.....	.....	.....
Unknown or unaccounted for	.....	8,017	.....	8,062	.....
Total	8,788,483	962,445	10.9	1,022,782	11.6

TELEPHONE SYSTEMS IN ONTARIO CONNECTING WITH THE BELL TELEPHONE COMPANY OF CANADA, LIMITED, SHOWING POINTS OF CONNECTION.

Systems marked (*) operate their own switchboard.

Point of Connection.	Name of System.
Ailsa Craig	Falkirk Telephone Co., Ltd.
Alexandria	*Glengarry Telephone Co., Ltd.
Vankleek Hill	
Allenford	*Allenford Rural Telephone Co., Ltd.
Alliston	Beeton Telephone Co., Ltd. *See* Beeton.
"	*Everett Telephone Co., Ltd.
Almonte	Lanark & Carleton Counties Telephone Co., Ltd.
Alvinston	*Brooke Municipal Telephone System.
Watford	
Inwood	
Arden	*Arden and Parham Telephone System. *See* Harrowsmith.
Arkona	Parkhill, Arkona Telephones Ltd. *See* Parkhill.
Arnprior	*Horton McNab Telephone Co., Ltd. *See* Renfrew.
"	*McNab Telephone Co., Ltd.
Arthur	North Wellington Telephone Co., Ltd.
Athens	*Plum Hollow & Eloida Telephone Co., Ltd.
Aultsville	*Stormont Telephone Co., Ltd.
Aurora	*Bethesda & Stouffville Telephone Co., Ltd. *See* Stouffville.
"	*Woodbridge & Vaughan Telephone Co., Ltd. *See* King.
"	W. A. Winter.
Aylmer	*South Malahide Telephone Co., Ltd.
Port Burwell	
Ayr	Ayr Rural Telephone Co., Ltd.
Ayton	Ayton Telephone Co., Ltd.
"	*Hyman Suroff (Suroff Telephone System). *See* Hanover.
"	Normanby Telephone Co., Ltd.
"	Robert Wightman. *See* Clifford.
Baden	*Wilmot Municipal Telephone System. *See* New Hamburg.
Bancroft	*People's Telegraph & Telephone Co., Ltd.
	And the following systems which connect through the People's Telegraph & Telephone Co., Ltd.:
	Carlow Municipal Telephone System.
	Faraday Municipal Telephone System.
	Monteagle & Herschel Municipal Telephone System.
Barrie	Barrie-Angus Telephone Co.
"	Crown Hill Telephone Co., Ltd.
"	*Ivy Thornton Telephone Co., Ltd.
"	Vespra Municipal Telephone System.
Barrie	*Oro Telephone Co., Ltd.
Orillia	
Barrie	*Stroud Telephone Co., Ltd.
Bath	*Ernestown Rural Tel. Co., Ltd. *See* Odessa.
"	Amherst Island Municipal Telephone System (connects through Ernestown Rural Tel. Co., Ltd.)
Beaverton	Centre Thorah Telephone Co., Ltd.
"	Egypt Telephone Co., Ltd.
Beeton	Beeton Telephone Co., Ltd.
Alliston	
Bradford	
Cookstown	
Tottenham	
Belle River	*Rochester Municipal Telephone System. *See* Woodslee.
Belleville	*McCreary Telephone Co., Ltd.
Belleville	*J. Grant Sprague.
Trenton	
Wellington	
Belleville	Sydney Bell Telephone Association.
Belwood	*West Garafraxa Telephone Co-operative Association, Ltd.
Fergus	
Bethany	*Manvers Municipal Telephone System.
Blind River	Hope Lumber Company's Telephone Line.
Blind River	Mississauga River Improvement Company.
Blyth	*Blyth Municipal Telephone System.

Point of Connection.	Name of System.
Bobcaygeon	Bobcaygeon Rural Telephone Co., Ltd.
"	*Dunsford Telephone Light & Power Co-operative Association, Ltd. *See* Dunsford.
Bolton	*Bolton Telephone Co., Ltd.
Bonfield	Bonfield Telephone Co., Ltd.
Bothwell	*Urban & Rural Telephone Co., Ltd.
Bowmanville	Bethesda Mutual Telephone Association.
"	East Darlington Telephone Association.
"	Salem Telephone Association.
"	*Port Hope Telephone Co., Ltd. *See* Port Hope.
Bracebridge	*Bracebridge & Muskoka Lakes Telephone Co., Ltd.
"	Monck Municipal Telephone System.
"	*Lake of Bays & Haliburton Telephone Co., Ltd.
"	Muskoka River Telephone Co., Ltd.
"	Muskoka, Victoria & Haliburton Telephone Co., Ltd.
"	Bracebridge & Northwood Telephone Co., Ltd.
"	Purbrook & Fraserburg Telephone Co., Ltd.
Bradford	Beeton Telephone Co., Ltd. *See* Beeton.
Brampton	*Chinguacousy Municipal Telephone System.
Brechin	Udney Telephone Co., Ltd.
"	Montreal (Ontario) Telephone Co., Ltd.
"	Point Mara Telephone Co., Ltd.
Bridgeburg Ridgeway Stevensville	*Welland County Telephone Co., Ltd.
Bridgenorth	*Harvey Municipal Telephone System.
Brigden Courtright	*Moore Municipal Telephone System.
Brighton Campbellford	*Brighton Municipal Telephone System.
Brighton	*Murray-Brighton Telephone System. *See* Frankford.
Brockville	*Addison Rural Independent Telephone Co., Ltd.
Brockville Prescott	*Leeds & Grenville Independent Telephone Co., Ltd.
Brockville	Mallorytown Telephone Co., Ltd. *See* Mallorytown.
Brooklin	*Home Telephone Co., Ltd. *See* Markham.
Bruce Mines	Aberdeen-Plummer Centre Line Telephone Association, Ltd.
"	Plummer Additional & Lefroy Municipal Telephone System.
"	*Plummer, Aberdeen & Galbraith Rural Telephone Association, Ltd.
"	Rose Telephone Co., Ltd.
"	Rydal Bank-Plummer Telephone Co., Ltd.
Brussels Seaforth	*Brussels, Morris & Grey Municipal Telephone System.
Burk's Falls	*Magnetawan Municipal Telephone System.
Burlington	*Nelson Telephone Co., Ltd. *See* Milton.
Caledon Orangeville	*Caledon Municipal Telephone System.
Caledonia	Dunnville Consolidated Telephone Co., Ltd. *See* Dunnville.
Cambray Woodville	*Cambray Telephone Co., Ltd.
Cameron	*Cameron Telephone Co., Ltd.
Campbellford	*Brighton Municipal Telephone System. *See* Brighton.
"	*Percy Municipal Telephone System. *See* Hastings.
Cannington	Edward Blanchard, M.D.
"	Ellis Rural Telephone Association.
"	W. J. Henderson.
"	George B. Johnston & R. C. Brandon.
"	Manilla Union Telephone Co., Ltd. *See* Woodville.
"	Saginaw Telephone Company.
"	North Brock Telephone Co., Ltd.
Cargill	Durham Road Telephone Co., Ltd. *See* Walkerton.
"	South Brant Telephone Association. *See* Walkerton.
Carleton Place	Goodwood Rural Telephone Co., Ltd.
"	*Lanark & Ramsay Telephone Association.
"	W. R. Caldwell (Loch End Ranch Private Telephone System).
Carlsbad Springs	*Gloucester Township Telephone Co., Ltd.
Carp	*Monk Rural Telephone Co., Ltd.
Cayuga Hagersville Jarvis	*Erie Telephone Co., Ltd.

Point of Connection.	Name of System.
Chatham	Dover Municipal Telephone System.
Chatsworth	Chatsworth Rural Telephone Association.
"	Desboro Telephone Co., Ltd.
"	Keward Rural Telephone Association.
"	Spey River Telephone Co., Ltd.
"	Sunny Valley Telephone Co., Ltd.
Chesley	Elderslie-Salem Telephone Association.
"	Fourteenth of Brant Telephone Association.
"	Gillies Hill Telephone Association.
"	Marmion Telephone Association.
"	Mooresburg Desboro' Telephone Association.
"	North Brant Telephone Association.
"	North Elderslie Telephone Association.
"	Orr & Steinhoff Telephone Association.
"	South Elderslie Telephone Association.
"	Sullivan & Bentinck Telephone Association.
"	Sullivan & Elderslie Telephone Association.
"	Town line of Brant & Elderslie Telephone Association.
"	Victory Telephone Co., Ltd.
Chesterville	*A. E. Glasgow. *See* Crysler.
Clarke	*Port Hope Telephone Co., Ltd. *See* Port Hope.
Clifford Ayton	Robert Wightman.
Clinton	Bayfield Municipal Telephone System. (Connects through Tuckersmith Municipal Telephone System.)
Clinton Goderich	Goderich Township Municipal Telephone System.
Clinton	McKillop Municipal Telephone System. *See* Seaforth.
"	Tuckersmith Municipal Telephone System. *See* Seaforth.
Cobden	Acorn Rural Telephone Association, Ltd.
"	Connaught Telephone Association.
"	Fourth Line Telephone Association.
"	Muskrat Lake Telephone Co., Ltd.
"	Osceola Telephone Association.
"	Pastime Telephone Association.
"	Queen's Line Telephone Co., Ltd.
"	Rox Rural Telephone Association.
"	Snake River Telephone Co., Ltd.
"	Wolftown Telephone Co., Ltd.
"	Zion Line Telephone Association, Ltd.
"	Kerr Line Telephone Co., Ltd.
"	*North Renfrew Telephone Co., Ltd. *See* Pembroke.
Coboconk	*Burnt River Telephone Co., Ltd. *See* Fenelon Falls.
"	Bexley Telephone Co., Ltd.
"	Head Lake Telephone Co., Ltd.
"	Norland Independent Telephone Co., Ltd.
"	Rumney Settlement Telephone Co., Ltd.
Cobourg	Front Road Telephone Association.
"	*Haldimand Rural Telephone Co., Ltd.
"	*Cold Springs Rural Telephone Co., Ltd.
"	*Harwood Rural Telephone Co., Ltd.
"	Kingston Road Rural Telephone Association.
Coe Hill	*Coe Hill Rural Telephone Co.
Colborne	*Cramahe Municipal Telephone System.
"	*Haldimand Municipal Telephone System. *See* Grafton.
Coldwater	*Coldwater Municipal Telephone System. And the following systems which connect through the Coldwater Municipal Telephone System: C. G. Millard. *Medonte Municipal Telephone System. *North River Municipal Telephone System.
Comber Tilbury	*Tilbury West Municipal Telephone System.
Coniston	*Mond Nickel Company, Limited.
Cookstown	Beeton Telephone Co., Ltd. *See* Beeton.
Copper Cliff	*British American Nickel Corporation, Ltd. *See* Sudbury.
Courtright	*Moore Municipal Telephone System. *See* Brigden.
Crediton	Thames Road Telephone System. *See* Exeter.
"	Crediton Rural Telephone System. (W. J. Orme, M.D.).

Point of Connection.	Name of System.
Creemore, Stayner	Noisy River Telephone Co., Ltd.
Crysler, Morewood, Chesterville, Finch, Russell, Embrun	*A. E. Glasgow.
Cutler	Massey Station Telephone Co., Ltd.
Dashwood	*Hay Municipal Telephone System. *See* Hensall.
Delhi	Windham Telephone Company. (Connects through Norfolk County Telephone Company.)
"	*Norfolk County Telephone Co., Ltd. *See* Simcoe.
Desbarats	*Johnson Municipal Telephone System.
Deseronto	F. A. Perry Telephone System.
"	D. H. Maracle (Tyendinaga Indian Reserve) Telephone System.
"	*Tyendinaga Municipal Telephone System.
Detlor	*Dungannon Municipal Telephone System.
Douglas	Bromley Telephone Association, Ltd.
"	Brougham & Grattan Telephone Co., Ltd.
"	Evergreen Telephone Co., Ltd.
"	Lightning Telephone Co., Ltd.
"	Foster Bros. Telephone Co., Ltd.
"	Upper Admaston Telephone Co., Ltd.
"	Hyndford Douglas Telephone Association.
Drayton	Union Telephone Co., Ltd.
Dublin, Mitchell, Seaforth	*McKillop, Logan & Hibbert Telephone Co., Ltd.
Dundalk	Bethel Rural Telephone Line.
"	Oldfields Telephone Line.
Dungannon, Goderich, Lucknow	*Goderich Rural Telephone Co., Ltd.
Dunnville, Caledonia	*Dunnville Consolidated Telephone Co., Ltd.
Dunsford, Bobcaygeon	*Dunsford Telephone, Light & Power Co-operative Association, Ltd.
Durham	*Hyman Suroff. *See* Hanover.
Dutton	Dunwich & Dutton Telephone Co., Ltd.
"	*Southwold & Dunwich Telephone Association, Ltd. *See* St. Thomas.
"	*Wallacetown & Lake Shore Telephone Assn., Ltd. *See* Wallacetown.
Echo Bay	*Laird Municipal Telephone System.
"	*MacDonald Municipal Telephone System.
Eganville, Pembroke	*Rankin Telephone Co.
	And the following systems which connect through the Rankin Telephone Co.:
	Mink Lake Rural Telephone Co., Ltd.
	Brudenell Telephone Co., Ltd.
	*Radcliffe Municipal Telephone System.
	*North Algona Municipal Telephone.
	*Hagarty & Richards Municipal Telephone System.
	*Sherwood Municipal Telephone System.
	Lower Bonnechere Telephone Co., Ltd.
	Wilberforce Rural Telephone Co., Ltd.
	Donegal Telephone Co., Ltd.
	Mud Lake Telephone Co., Ltd.
	Augsburg Telephone Association, Ltd.
	Grattan No. 7, Telephone Association, Ltd.
	Dore Bay Telephone Co., Ltd.
Elgin	Elgin-Chaffey's Locks Telephone Co.
"	*South Crosby Rural Telephone Co., Ltd.
Elmvale	*Flos Municipal Telephone System.
Elmwood	*Jas. Alexander.
Embro	*Innerkip Rural Telephone Co., Ltd. *See* Innerkip.
"	*Nissouri Telephone Co., Ltd.
"	Zorra Telephone Co., Ltd.
Embrun	*A. E. Glasgow. *See* Crysler.

Point of Connection.	Name of System.
Emsdale	*Muskoka & Parry Sound Telephone Co.
"	Dept. of Lands, Forests & Mines of the Province of Ontario (Algonquin Park Tel. System). (Connects through Muskoka & Parry Sound Tel. Co.).
Ennismore	*Ennismore Municipal Telephone System.
Enterprise	*Enterprise Telephone Co., Ltd.
Erin	*Erin Municipal Telephone System.
Essex	*Maidstone Municipal Telephone System.
"	Colchester North Municipal Telephone System.
"	*Gosfield North Municipal Telephone System.
"	*Sandwich South Municipal Telephone System. *See* Windsor.
Exeter	Crediton Rural Telephone System. *See* Crediton.
"	*Hay Municipal Telephone System. *See* Hensall.
"	*St. Mary's, Medina & Kirkton Telephone Co., Ltd. *See* St. Mary's.
Exeter Crediton	Thames Road Telephone System. (H. K. Hyndman.)
Fenella	*Fenella Rural Telephone Co.
Fenelon Falls Coboconk	*Burnt River Telephone Co., Ltd. And the following systems which connect through the Burnt River Telephone Co.: *Minden Municipal Telephone System. *Stanhope Municipal Telephone System. *Dysart Municipal Telephone System.
Fenelon Falls	Fenelon Rural Telephone Association.
"	Rosedale Rural Telephone Association.
Fergus	*West Garafraxa Telephone Co-operative Assn., Ltd. *See* Belwood.
Finch	*A. E. Glasgow. *See* Crysler.
Flesherton	*Osprey Municipal Telephone System.
Flinton	*Kaladar & Northern Telephone Co. (Wm. Both.)
Fordwich	*Howick Municipal Telephone System.
Forest	*People's Telephone Co., of Forest, Ltd.
Fournier	*Prescott Rural Telephone Co., Ltd.
Frankford Brighton	*D. S. Austin. (Murray-Brighton Telephone System.)
Franktown	*Beckwith & Montague Rural Telephone Co., Ltd.
Gananoque	South Leeds & Pittsburg Rural Telephone Co., Ltd.
Georgetown	Ashgrove Rural Telephone Co., Ltd.
Gibson's	*Pefferlaw Telephone System.
Glencoe	*Caradoc-Ekfrid Telephone Co., Ltd. *See* Melbourne.
Goderich	*Goderich Rural Telephone Co., Ltd. *See* Dungannon.
"	*Colborne Township Municipal Telephone System.
"	Goderich Township Municipal Telephone System. *See* Clinton.
"	Salkeld Telephone System.
Gorrie	*Wroxeter Rural Telephone Co., Ltd. *See* Wroxeter.
Grafton Colborne	*Haldimand Municipal Telephone System.
Grand Valley	*East Luther Telephone Co., Ltd.
Granton	*St. Mary's, Medina & Kirkton Telephone Co., Ltd. *See* St. Mary's.
Gravenhurst	Doe Lake Telephone Co., Ltd.
"	Ryde Municipal Telephone System.
Hagersville	*Erie Telephone Co., Ltd. *See* Cayuga.
Haley Station	Haley Station Rural Telephone Association, No. 1.
"	Haley Station Rural Telephone Association, No. 2.
"	North Eastern Telephone Association, No. 3.
Hanover Durham Ayton Neustadt	*Hyman Suroff.
Hanover	Carlsruhe Telephone Association.
"	Brant Telephone Co., Ltd.
Harrietsville	*Harrietsville Telephone Association, Ltd.
Harriston	Minto Telephone Co., Ltd.
Harrow	Gore Mutual Telephone Co., Ltd.
"	South Colchester Telephone Co., Ltd.

Point of Connection.	Name of System.
Harrowsmith, Arden	*Arden and Parham Telephone System. (Edw. Barker.)
	And the following systems which connect through the Arden and Parham Telephone System:
	Conboy Telephone System (H. A. Conboy).
	Elmtree Telephone System.
	McLean Telephone System.
	Tichborne Rural Telephone Association.
	Clarendon Telephone System (Robt. Francis).
Hastings, Campbellford	*Percy Municipal Telephone System.
Havelock	Belmont Municipal Telephone System.
Hawkesbury	Scottish Canadian Magnesite Co., Ltd.
Hensall, Exeter, Dashwood	*Hay Municipal Telephone System.
Hensall	Tuckersmith Municipal Telephone System. *See* Seaforth.
Hepworth	Amabel Telephone Association.
"	Maple Grove Telephone Association.
"	Mount Horeb Telephone Co., Ltd.
"	Park Head Telephone Association.
"	Spring Creek Telephone Association.
Hespeler	*Waterloo Municipal Telephone System. *See* Kitchener.
Huntsville	*W. E. Campsall. (Muskoka Independent Telephone System.)
"	*Huntsville & Lake of Bays Telephone Co., Ltd.
"	*Huntsville & Portage Telephone Association.
"	Ravenscliffe Telephone Co., Ltd.
"	Grunwald Telephone Line. (J. W. White.)
"	Fairyport Telephone Line (E. J. Ecclestone).
Ingersoll	*Ingersoll Telephone Co., Ltd.
Innerkip, Plattsville, Tavistock, Woodstock, Embro	*Innerkip Rural Telephone Co., Ltd.
Inwood	*Brooke Municipal Telephone System. *See* Alvinston.
Iron Bridge	*Iron Bridge Telephone Co., Ltd.
Jarvis	*Erie Telephone Co., Ltd. *See* Cayuga.
Kearney	Dept. of Lands & Forests of the Province of Ontario. (Algonquin Park).
Keene, Peterboro	*Otonabee Municipal Telephone System.
Kincardine	Lake Shore Mutual Telephone Co., Ltd. (connects through Bruce Municipal Telephone System).
Kincardine, Port Elgin, Paisley	*Bruce Municipal Telephone System.
King, Aurora, Richmond Hill	*Woodbridge & Vaughan Telephone Co., Ltd.
Kingston	*Leeds & Frontenac Rural Telephone Co., Ltd. *See* Seeley's Bay.
Kingsville	New California Rural Telephone Association.
"	Scratch & Palmer Telephone System.
"	Section Telephone System. (Wendell J. Wigle and Howard Wigle.)
Kitchener, Waterloo, Preston, Hespeler	*Waterloo Municipal Telephone System.
Lanark	*Hopetown Telephone Co., Ltd.
"	*Lavant-Dalhousie Telephone Co., Ltd.
"	*Mississippi Telephone Co., Ltd.
Lansdowne	*Lansdowne Rural Telephone Co., Ltd.
Leamington	Mersea Municipal Telephone System.
"	*Pelee Municipal Telephone System.
"	White Telephone Co., Ltd.
Lefroy	Innisfil Telephone Co., Ltd.

Point of Connection	Name of System.
Lindsay	Hogg & Lytle, Limited. (Blackwater Telephone Line.)
Linwood, Wellesley	*Wellesley Municipal Telephone System.
Listowel	*Molesworth Independent Telephone Co., Ltd.
Little Britain	*Little Britain Telephone Co., Ltd.
Lobo	*London Township Municipal Telephone System.
Lombardy	*Elmsley South Rural Telephone Co., Ltd.
London	*Belmont Telephone Co-operative Association, Ltd. *See* St. Thomas.
"	*Byron Telephone Co., Ltd.
"	Lambeth Telephone Co., Ltd.
"	*St. John Telephone System. (D. G. MacNeill.)
London, Lucan, Strathroy, Lobo	*London Township Municipal Telephone System.
Lucan	Mooreville Telephone Association.
"	*London Township Municipal Telephone System. *See* London.
Lucknow	*Goderich Rural Telephone Co., Ltd. *See* Dungannon.
"	*Huron & Kinloss Municipal Telephone System. *See* Ripley.
"	Lucknow & Kinloss Telephone Association.
Lyndhurst	*Lyndhurst Rural Telephone Co., Ltd.
MacLennan	*Tarbutt Municipal Telephone System.
Madoc	Plane Settlement Telephone Co., Ltd.
Mallorytown, Brockville	*Mallorytown Telephone Co., Ltd.
Markdale	East Grey Telephone Co., Ltd.
"	A. A. Lyons. (Lyons Telephone System.)
"	Thomas Mercer. (Green Hill Telephone System.)
"	Euphrasia Municipal Telephone System.
"	Glenelg Municipal Telephone System.
Markham, Pickering, Brooklin, Uxbridge, Unionville	*The Home Telephone Co., Ltd.
Marmora	Lily Creek Telephone Co., Ltd.
"	Northern Mutual Telephone Association.
Martintown	*Martintown Rural Telephone Co., Ltd.
Massey	La Cloche Rural Telephone Co., Ltd.
"	Victoria Rural Telephone Co., Ltd.
"	West Lake Telephone Co., Ltd.
Maxville	*Roxborough Municipal Telephone System. *See* Moose Creek.
Meaford	Blind Line Telephone Co., Ltd.
"	St. Vincent Municipal Telephone System.
"	*Beaver Valley Municipal Telephone System. *See* Thornbury.
Melbourne, Mt. Brydges, Strathroy, Glencoe	*Caradoc-Ekfrid Telephone Co., Ltd.
Merlin	Tilbury East Municipal Telephone System. *See* Tilbury.
Metcalfe	*Metcalfe Rural Telephone Co., Ltd.
Midland	Mountain Telephone System.
"	West Tay Municipal Telephone System.
Mildmay, Teeswater	*South Bruce Rural Telephone Co., Ltd.
Millbrook	*Millbrook Rural Telephone Co., Ltd. And the following systems which connect through the Millbrook Rural Telephone Co., Ltd.: Cavan Rural Telephone Co., Ltd. Fallis Line Telephone Co., Ltd. North Cavan Rural Telephone Co., Ltd.
Milton	G. E. Bousfield.
"	Halton Telephone Co., Ltd.
Milton, Burlington	*Nelson Telephone Co., Ltd.
Milton	Milton Telephone Co., Ltd.
Milverton	*Mornington Municipal Telephone System.
Minesing	*Minesing Telephone System (A. Ronald)
"	Minesing Telephone Co., Ltd., (connects through Minesing Tel. System)

Point of Connection.	Name of System.
Mitchell	*McKillop, Logan & Hibbert Telephone Co., Ltd. *See* Dublin.
"	*St. Mary's, Medina & Kirkton Telephone Co., Ltd. *See* St. Mary's.
Moose Creek, Maxville	*Roxborough Municipal Telephone System.
Morewood	*A. E. Glasgow. *See* Crysler.
Moscow	*Moscow Rural Telephone Association. (E. L. Van Luven.)
	And the following systems which connect through the Moscow Rural Telephone Association:
	Bellrock Shimo Telephone Co., Ltd.
	Desmond Rural Telephone Co., Ltd.
	Addington Telephone Co., Ltd.
	Verona & Bellrock Telephone Co., Ltd.
	Portland Rural Telephone Co. (Joseph Foster).
	Moscow Mutual Telephone Co., Ltd.
Mount Albert, Newmarket	*Mount Albert Telephone Co., Ltd.
Mount Brydges	*Caradoc-Ekfrid Telephone Co., Ltd., *See* Melbourne.
Mount Forest	*Conn Telephone Co., Ltd.
"	Mount Forest, Wellington & Grey Telephone Co., Ltd.
Mount Julian	*Apsley Telephone Co., Ltd.
Napanee	Fretts & Briscoe Telephone Association.
"	Hawley Telephone Co., Ltd.
"	T. H. Herrington.
"	Lennox Telephone Co., Ltd.
"	Palace Road Telephone Co., Ltd.
"	F. A. Perry.
"	Pleasant Valley Telephone Co., Ltd.
"	Riverdale Rural Telephone Association.
Navan	*Russell Rural Telephone Co., Ltd.
Neustadt	*Hyman Suroff. *See* Hanover.
Newburgh	Camden Independent Telephone Co., Ltd.
"	Selby Telephone Co., Ltd.
New Dundee, Plattsville	New Dundee Rural Telephone Co., Ltd.
New Hamburg	*North Easthope Municipal Telephone System. *See* Shakespeare.
New Hamburg, Baden	*Wilmot Municipal Telephone System.
Newmarket	*Doane Telephone Association.
"	Mount Albert Telephone Co., Ltd. *See* Mount Albert.
North Bay	James Fowler. (Passmore-Fowler Telephone Line.)
"	Widdifield Municipal Telephone System.
"	*Temiskaming & Northern Ontario Railway Commission.
	And the following systems which connect through the T. & N. O. Railway Commission:
	*Cochrane Municipal Telephone System.
	*Porcupine Telephone Company.
	*Temiskaming Telephone Co., Ltd.
	Government Telephone Line. (Ville Marie to New Liskeard.)
	*Kerns Municipal Telephone System.
	*Hilliard Municipal Telephone System.
Northcote	*Northcote Farmers' Telephone Co., Ltd.
North Gower	*Hazeldean Rural Telephone Co., Ltd. *See* Ottawa.
Norwich	*North Norwich Municipal Telephone System. *See* Woodstock.
Oakwood	*Oakwood Telephone Co., Ltd.
Odessa, Bath	*Ernestown Rural Telephone Co., Ltd.
Oil Springs	*Dawn Municipal Telephone System. *See* Rutherford.
Omemee	Omemee Telephone Co., Ltd.
"	Emily Municipal Telephone System.
Orangeville, Shelburne	*The Robert Henry Edgar Telephone Co., Ltd.
Orangeville	*Caledon Municipal Telephone System. *See* Caledon.
"	*Mono Mills Independent Telephone Co., Ltd.
Orillia	Ardtrea Telephone Co., Ltd.
"	Champlain Point-Telephone Co., Ltd.
"	Coulson Jarratt Telephone Co., Ltd.
"	O'Connell-Rathburn Telephone Co., Ltd.
"	Forest Home Telephone Co., Ltd.
"	Mutual Telephone Co., Ltd.

Point of Connection.	Name of System.
Orillia	*Oro Telephone Co., Ltd. *See* Barrie.
"	Pinegrove Telephone Association, Ltd.
"	*Sebright Telephone Co., Ltd.
"	Uhthoff Telephone Co., Ltd.
"	Uptergrove Telephone Co., Ltd.
"	Atherley Telephone Co., Ltd.
"	Hampshire Telephone Co., Ltd.
"	Rama Mara Telephone Co., Ltd.
Ottawa North Gower	*Hazeldean Rural Telephone Co., Ltd.
Otterville	*Norfolk County Telephone Co., Ltd. *See* Simcoe.
Owen Sound	Balaclava Telephone Co., Ltd.
"	Ben Allen Telephone Co., Ltd.
"	Bognor Telephone Co., Ltd.
"	Centre Road Telephone Co., Ltd.
"	Derby Telephone Co., Ltd.
"	Fifth Line Telephone Co., Ltd.
"	Glen Eden Telephone Co., Ltd.
"	Hoath Head & Grey Telephone Co., Ltd.
"	Jackson Telephone Co., Ltd.
"	Kemble-Sarawak Telephone Co., Ltd.
"	Leith & Annan Telephone Co., Ltd.
"	Maple Leaf Telephone Co., Ltd.
"	Pleasant View Telephone Co., Ltd.
"	Silcote Telephone Co., Ltd.
"	South Diagonal Telephone Co., Ltd.
"	Sydenham Union Telephone Co., Ltd.
"	Woodford Telephone Co., Ltd.
Paisley	*Bruce Municipal Telephone System. *See* Kincardine.
Palmerston	Hawthorne Hill Rural Telephone Co., Ltd.
Parkhill Arkona	*Parkhill Arkona Telephones, Ltd.
Parkhill Strathroy	*West Williams Rural Telephone Association, Ltd.
Parry Sound	*Canadian Explosives, Limited.
"	Valley Farm Telephone System (Mark Taylor).
"	*McKellar Municipal Telephone System.
Pembroke	Alice Telephone Co., Ltd.
"	Petawawa Rural Telephone Co., Ltd.
"	Tenth Concession Alice & Fraser Telephone Co., Ltd.
"	Indian River Telephone Association.
"	Petawawa Military Camp Telephone System.
"	Town Line Telephone Association of Stafford & Pembroke, Ltd.
"	Pembroke & Mud Lake Telephone Co., Ltd.
Pembroke	*North Renfrew Telephone Co., Ltd.
Cobden	Westmeath Seventh Line Telephone Co., Ltd. (connects through North Renfrew Telephone Co., Ltd.).
Pembroke	*Rankin Telephone Co. *See* Eganville.
Penetang	*Tiny Municipal Telephone System.
Perth	*Balderson Telephone Association.
"	Drummond Centre Telephone Co., Ltd.
"	Drummond & Elmsley Telephone Association.
"	Fourth Line of Bathurst Telephone Co., Ltd.
"	Ferry Road Telephone Co., Ltd.
"	Perth & Christie's Lake Telephone Co., Ltd.
"	Scotch Line & Stanleyville Telephone Co., Ltd.
"	Second Line Drummond Telephone Co., Ltd.
"	Black Lake Telephone Co., Ltd.
"	Maberly Telephone Co., Ltd.
Peterboro	*Otonabee Municipal Telephone System. *See* Keene.
"	*Douro Municipal Telephone System.
Pickering	*Home Telephone Co., Ltd. *See* Markham.
Picton	Gore "G" Telephone Co., Ltd.
"	*Marysburg Telephone Company.
"	*People's Mutual Telephone Co., Ltd.
Plattsville	*Innerkip Rural Telephone Co., Ltd. *See* Innerkip.
"	New Dundee Rural Telephone Co., Ltd. *See* New Dundee.
"	*Princeton & Drumbo Telephone Co., Ltd. *See* Princeton.

Point of Connection.	Name of System.
Port Burwell	*South Malahide Telephone Co., Ltd. *See* Aylmer.
"	*Houghton & Bayham Telephone Co., Ltd. (connects through South Malahide Telephone Co.'s Port Burwell Exchange.)
Port Dover	*Norfolk County Telephone Co., Ltd. *See* Simcoe.
Port Elgin	*Bruce Municipal Telephone System. *See* Kincardine.
Port Hope	*A. C. Beatty.
Port Hope, Clarke, Bowmanville	*Port Hope Telephone Co., Ltd.
Port Hope	*Orono Telephone Co., Ltd. (Connects through Port Hope Telephone Co., Ltd.).
"	*A. L. Russell, M.D.
Port Rowan	South Norfolk Telephone Co., Ltd. The following systems connect through the South Norfolk Telephone Co., Ltd.: Houghton & Walsingham Telephone Co. Unger Telephone System.
Powassan	Chisholm Municipal Telephone System.
"	J. B. Moore and M. Chesney. (Nipissing Telephone Line.)
"	Nipissing Municipal Telephone System.
Prescott	*Leeds & Grenville Independent Telephone Co., Ltd. *See* Brockville.
Preston	*Waterloo Municipal Telephone System.
Princeton, Plattsville	*Princeton & Drumbo Telephone Co., Ltd.
Renfrew	Admaston Rural Telephone Association, Ltd.
"	Balsam Hill Telephone Co., Ltd.
"	*Calabogie & Renfrew Telephone Association. (M. J. O'Brien.)
Renfrew, Arnprior	*Horton & McNab Telephone Co., Ltd.
Renfrew	*Madawaska Telephone Association, Ltd.
"	North Bonnechere Telephone Association, Ltd.
"	North Horton Telephone Co., Ltd.
"	Renfrew & Shamrock Telephone Association, Ltd.
"	South McNaughton Telephone Co., Ltd.
Riceville	*South Plantagenet Rural Telephone Co., Ltd.
Richards Landing	*The Richards Landing Central Telephone Exchange (Proprietor, Miss Helen Good), connecting with: Richards Landing Municipal Telephone Club. St. Joseph's Island Telephone Co., Ltd. Jocelyn Municipal Telephone System. Gawas & Shore Road Telephone Co.
Richmond Hill	*Bethesda & Stouffville Telephone Co., Ltd. *See* Stouffville.
"	*Woodbridge & Vaughan Telephone Co., Ltd. *See* Woodbridge.
Ridgeway	*Welland County Telephone Co., Ltd. *See* Bridgeburg.
Ripley, Lucknow	*Huron & Kinloss Municipal Telephone System.
Rockwood	Rockwood & Oustic Telephone Co., Ltd.
Rodney, West Lorne	Aldborough Farmers' Telephone Association, Ltd.
Rodney, West Lorne	New Glasgow Telephone Co., Ltd.
Roseneath	*Alnwick Rural Telephone Co., Ltd.
Rosseau	*Humphrey Municipal Telephone System. And the following systems which connect through the Humphrey Municipal Telephone System: *Christie Municipal Telephone System. Spence Monteith Telephone Co., Ltd.
Russell	*A. E. Glasgow. *See* Crysler.
Rutherford, Oil Springs	*Dawn Municipal Telephone System.
Rutherglen	*Rutherglen Telephone Co., Ltd.
Sault Ste. Marie	*Algoma Central & Hudson Bay Railway.
"	Jas. Elliott, Jr.
"	Goulais Bay Telephone Co., Ltd.
"	Greenwood Telephone Association, Ltd.
"	Korah Central Telephone Co., Ltd.
"	Mount Granite Telephone Co., Ltd.
"	G. H. Farmer.

Point of Connection.	Name of System.
Sault Ste. Marie	Superior Telephone Club.
"	Tarentorus Telephone Co., Ltd.
"	Korah Base Line Telephone Co., Ltd.
Schomberg	*Schomberg Telephone Co., Ltd.
Tottenham	
Scotland	*Norfolk County Telephone Co., Ltd. *See* Simcoe.
Seaforth	*McKillop, Logan & Hibbert Telephone Co., Ltd. *See* Dublin.
"	*Brussels, Morris & Grey Municipal Telephone System. *See* Brussels
Seaforth	McKillop Municipal Telephone System.
Clinton	
Seaforth	Tuckersmith Municipal Telephone System.
Clinton	
Hensall	
Seeley's Bay	*Leeds and Frontenac Rural Telephone Co., Ltd.
Kingston	
Severn Bridge	Sparrow Lake Private Telephone Line.
Shakespeare	*North Easthope Municipal Telephone System.
Stratford	
Tavistock	
New Hamburg	
Shelburne	Back Line Telephone Co., Ltd.
"	*Edgar Telephone System. *See* Orangeville.
"	Maple Grove Telephone Co., Ltd.
"	Violet Hill Rural Telephone Co., Ltd.
"	Rocktown Telephone Association.
Simcoe	*Norfolk County Telephone Co., Ltd.
Otterville	
Waterford	
Delhi	
Port Dover	
Scotland	
Smith's Falls	Brockville Road Rural Telephone Co., Ltd.
"	Glenview Rural Telephone Co., Ltd.
"	*Rural Telephone Co. of Kitley, Ltd.
"	*Wolford Rural Telephone Co., Ltd.
"	Roseville Rural Telephone Co., Ltd.
Sombra	*Lambton Telephone Co., Ltd.
Southampton	Chippawa Hill Telephone Co., Ltd.
"	Saugeen Rural Telephone Co., Ltd.
Sparta	*Sparta Rural Telephone Co., Ltd.
Stayner	*Noisy River Telephone Co., Ltd. *See* Creemore.
Stevensville	*Welland County Telephone Co., Ltd. *See* Bridgeburg.
Stouffville	*Bethesda & Stouffville Telephone Co., Ltd.
Aurora	
Richmond Hill	
Thornhill	
Stratford	Nelson, Monteith & John Dempsey.
"	*North Easthope Municipal Telephone System. *See* Shakespeare.
"	Peter F. Quinlan, M.D.
"	*Sebringville Telephone System.
Strathroy	*M. C. Morgan. (Adelaide Telephone System.)
"	*Alex. G. McKenzie. (Coldstream Telephone System.)
"	*Caradoc-Ekfrid Telephone Co., Ltd. *See* Melbourne.
"	*London Township Municipal Telephone System.
"	*West Williams Rural Telephone Association. *See* Parkhill.
Sudbury	Algoma Eastern Railway Co.
Sudbury	*British America Nickel Corporation, Ltd.
Copper Cliff	
Sudbury	*R. V. Tremblay. (Chelmsford Telephone Line.)
"	Wahnapitae Power Co., Ltd.
Sunderland	*Sunderland Telephone Co., Ltd.
Sundridge	Strong Municipal Telephone System.
Sutton West	Sutton & North Gwillimbury Telephone Co., Ltd.
Sydenham	Roman Catholic Episcopal Corporation of the Diocese of Kingston.
"	Rosedale Rural Telephone Co., Ltd.
St. Mary's	*East Middlesex Telephone Co., Ltd. *See* Thorndale.
St. Mary's	*St. Mary's, Medina & Kirkton Telephone Co., Ltd.
Exeter	
Mitchell	
Granton	

Point of Connection.	Name of System.
St. Thomas	*Belmont Telephone Co-operative Association, Ltd. *See* London.
"	*Fingal Telephone Co., Ltd.
St. Thomas, Dutton	*Southwold & Dunwich Telephone Association, Ltd.
St. Thomas	*Yarmouth Rural Telephone Co., Ltd.
Tamworth	*Redden Telephone Co., Ltd.
Tara	Arran, No. 1, Telephone Association.
"	Tara-Keady Telephone Co., Ltd.
Tavistock	*Innerkip Rural Telephone Co., Ltd. *See* Innerkip.
"	*North Easthope Municipal Telephone System.
Teeswater	*South Bruce Rural Telephone Co., Ltd. *See* Mildmay.
Thamesford	*George R. Mills. (Mills Telephone System.)
Thamesville	*Thamesville Telephone Co., Ltd.
Thedford	*Thedford, Arkona & East Lambton Telephone Co., Ltd.
Thessalon	Thessalon Municipal Telephone System.
"	Livingstone Rural Telephone Co., Ltd.
Thornbury, Meaford	Beaver Valley Municipal Telephone System.
Thornbury	Camperdown Telephone Co., Ltd.
"	C. W. Hartman.
Thorndale, St. Marys	*East Middlesex Telephone Co., Ltd.
Thornhill	*Bethesda & Stouffville Telephone Co., Ltd. *See* Stouffville.
"	*Woodbridge & Vaughan Telephone Co., Ltd. *See* Woodbridge.
Tilbury, Merlin	Tilbury East Municipal Telephone System.
Tilbury	*Tilbury West Municipal Telephone System. *See* Comber.
Tillsonburg	*Houghton, Bayham & Tillsonburg Telephone Association.
"	*Malahide & Bayham Telephone Association, Ltd.
"	*Norfolk & Tillsonburg Telephone Co., Ltd.
Tottenham	Beeton Telephone Co., Ltd. *See* Beeton.
Tottenham	*Schomberg Co., Ltd. *See* Schomberg.
Trenton	Crews Telephone Co., Ltd.
"	MacDonald Telephone Association.
"	*J. Grant Sprague. *See* Belleville.
Tweed	Hungerford Municipal Telephone System.
Unionville	*Home Telephone Co., Ltd. *See* Markham.
Utterson	Watt Municipal Telephone System.
Uxbridge	*Home Telephone Co., Ltd. *See* Markham.
Vankleek Hill	*Glengarry Telephone Co., Ltd. *See* Alexandria.
Verner	Verner Telephone System.
Verona	*Verona & Frontenac Telephone Co., Ltd.
Victoria Harbor	*Tay Municipal Telephone System.
Walkerton, Cargill	Durham Road Telephone Co., Ltd.
Walkerton, Cargill	South Brant Telephone Association.
Wallacetown, Dutton, West Lorne	*Wallacetown Lake Shore Telephone Association, Ltd.
Warren	*Dunnett Municipal Telephone System.
Warsaw	*Dummer Municipal Telephone System.
Waterford	*Norfolk County Telephone Co., Ltd. *See* Simcoe.
Waterloo	*Waterloo Municipal Telephone System. *See* Kitchener.
Watford	*Brooke Municipal Telephone System. *See* Alvinston.
Webbwood	Shakespeare Telephone Co., Ltd.
"	Birch Lake Telephone Co., Ltd.
Wellesley	*Wellesley Municipal Telephone System. *See* Linwood.
Wellington	*J. Grant Sprague. *See* Belleville.
West Lorne	Aldborough Farmers' Telephone Association, Ltd. *See* Rodney.
"	New Glasgow Telephone Co., Ltd. *See* Rodney.
"	*Wallacetown & Lake Shore Telephone Association, Ltd. *See* Wallacetown.
Westport	*Westport Rural Telephone Co., Ltd.

Point of Connection.	Name of System.
Wheatley	Balmoral Telephone System.
	The following systems connect through the Balmoral Telephone System:
	Romney Telephone System.
	Wheatley Telephone Co., Ltd.
Wiarton	Clavering Telephone Co., Ltd.
"	*William Gillies. (Gillies Telephone System.)
"	Silver Creek Telephone Co., Ltd.
"	Cecil Swale Telephone Association.
"	Lake Charles Telephone Co., Ltd.
"	Boat Lake Telephone Co., Ltd.
"	Zion & Wolseley Telephone Co., Ltd.
"	Keppell Rural Telephone Co., Ltd.
Windsor Essex	*Sandwich South Municipal Telephone System.
Windsor	Sandwich West Co-operative Telephone Co., Ltd.
Woodbridge Richmond Hill Thornhill	*Woodbridge & Vaughan Telephone Co., Ltd.
Woodslee Belle River	*Rochester Municipal Telephone System.
Woodstock	Bond's Corner Telephone Co., Ltd.
"	Dingwall Telephone Co., Ltd.
"	Excelsior Telephone Co., Ltd.
"	Fairview Telephone Co., Ltd.
"	Fraser Telephone Co., Ltd.
"	Ingleside Telephone Co., Ltd.
"	Innerkip Rural Telephone Co., Ltd. *See* Innerkip.
"	Mapleshade Telephone Co., Ltd.
"	Peerless Telephone Co., Ltd.
"	Penhurst Telephone Co., Ltd.
"	Pioneer Telephone Co., Ltd.
"	Riverside Telephone Co., Ltd.
"	Spring Creek Telephone Co., Ltd.
Woodstock Norwich	*North Norwich Municipal Telephone System.
Woodville	*Cambray Telephone Co., Ltd. *See* Cambray.
"	East Woodville Telephone Co., Ltd.
"	Eldon Union Telephone Co., Ltd.
Woodville Cannington	*Manilla Union Telephone Co., Ltd.
Woodville	Manse Grove Telephone Co., Ltd.
"	Woodville-Glen Telephone Association.
Wroxeter Gorrie	*Wroxeter Rural Telephone Co., Ltd.
Yarker	*Yarker Telephone Co. (Manley Foster.)
	And the following systems which connect through the Yarker Telephone Co.:
	B. D. & H. Telephone Line.
	Yarker Mutual Telephone Association.
	Yarker Rural Telephone Co., Ltd.

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